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GIFT OF

JAMES STURGIS PRAY

CHARLES ELIOT PROFESSOR OF LANDSCAPE ARCHITECTURE

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Cambridge, Mass.

THE MAGAZINE
OF
HORTICULTURE,
BOTANY,

AND ALL USEFUL DISCOVERIES AND IMPROVEMENTS IN
RURAL AFFAIRS.

"Je voudrais échauffer tout l'univers de mon gout pour les jardins. Il me semble qu'il est impossible qu'un méchant puisse l'avoir. Il n'est point de vertu que je ne suppose à celui que aime à parler et à faire des jardins. Pères de famille, inspirez à jardinomanie à vos enfans."—*Prince De Ligné.*

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AUTHOR OF THE "FRUITS OF AMERICA."

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PREFACE.

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Boston, Nov. 22, 1853.

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THE MAGAZINE OF HORTICULTURE.

JANUARY, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *A Retrospective View of the Progress of Horticulture in the United States, during the year 1852.* By the EDITOR.

THE winter of 1851 and 1852 was one of the most severe which has been experienced since 1835. It was of very long duration, commencing early in November and continued into April. The average temperature was very low, and the extremes of cold greater than is often experienced in the latitude of Boston. The spring advanced with great rapidity. The frost was not out of the ground on the 3d of April, and just one month afterwards, May 8th, cherries, peaches, &c., were in full bloom! leaving less than a good working month to do all the heavy labor of spring planting. Nearly ten inches of rain fell in the first ten days of April, and succeeding this came the great drought of 1852, lasting from May to the 25th of August, and extending throughout New England, with such severity that the hay crop was not half, and in some instances one quarter, the average of good years.

The month of January commenced with mild weather, the temperature at 40°. On the 3d it began to snow, and continued up to the 7th, falling to the depth of a foot. Cold, cloudy and snowy weather succeeded. On the 13th the temperature was 10°; on the 15th, mild again, rising to 40° at noon; but on the 16th the change was very sudden, indi-

cating the severity of 12° below zero. On the 18th, with more moderate weather, five or six inches of snow again fell, with another depression of the temperature to 8° below zero on the morning of the 20th; 22d, 10° below; 23d, zero. The remainder of January was milder, with snow.

February opened with a continuation of the snow storm, about one foot falling up to the 2d. On the 4th it was milder, the snow thawing fast. This continued up to the 12th, ending with a warm southerly rain. The 16th was cool again, with snow to the depth of three inches. Another severe snap then commenced; the 19th, zero; 20th, 3° below; 21st, 4° below; 22d, two inches of snow again. The remaining week was variable, with some mild days, which carried off the snow.

The month of March was cold. On the 3d the temperature was 2° , and the 4th, 6° above; the 5th, snowy; 7th and 8th milder, and the 9th showery. This mild weather continued up to the 19th, when snow again fell, succeeded by cold and frost, with the temperature at 18° . 23d, easterly storm; 25th, four inches of snow, with alternate days of rain and cloudy weather to the close of the month.

April was the most rainy month of the year. The 2d was rainy and snowy; the 3d so cool that it did not thaw in the shade. The 6th was the stormiest day of the season, about a foot of snow fell, which drifted in many places to the depth of three feet. The 9th was rainy and snowy again, succeeded by two warm days, and another snow storm of four inches on the 13th. Rain set in on the 18th, and continued with but little cessation up to the 24th. The remainder of the month was fine, with cool frosty nights.

As if to make up for the cold and backward weather of April, May was a very pleasant month. The 3d and 4th were cool days for the season; but the 7th and 8th were excessively warm, the thermometer reaching the high point of 88° , at noon. Vegetation seemed to start all at once; scarcely a bud appeared swollen on many trees on the 3d; and on the 9th the same trees were partially in leaf. The 12th to the 15th was rainy, succeeded by cool weather and easterly

winds, up to the 21st. The rest of the month was fine and warm, with high, drying winds.

June continued warm and genial, but dry: the 3d and 8th were accompanied with very slight showers, not sufficient to wet the ground, and the intervening days were warm, with very drying winds. The 12th was very cool, with frost in some places. Up to the 16th it continued warm and dry, the temperature being 90° on the 15th and 98° on the 16th, the highest point the mercury reached but once during the year. A fine shower fell on the 17th, and another on the 22d, accompanied with thunder. The remainder of the month was dry and warm.

July was mostly warm and dry throughout. On the 8th the temperature was 89°; the 9th, 99°, the hottest day of the summer; 10th, 96°; 11th, 91°; 12th, 94°, and 13th, 90°; a very hot and trying week in the absence of rain. On the 17th a light cool rain fell, but not sufficient to wet the ground. The 21st and 22d were hot days; the remaining week was cooler, with east winds, and a very light shower on the 30th.

The early part of August was variable, with very light showers, barely sufficient to damp the ground, and alternate cool and warm days. From the 12th to the 25th it was very dry, warm and sultry. The 26th and 27th were showery, and the 29th and 30th accompanied by severe easterly storms, in which upwards of six inches of rain fell; the high wind also did much damage to crops, and great quantities of fruit were blown off.

September was warm and beautiful; the refreshing rains and the genial weather resuscitating vegetation everywhere. The 12th was the first stormy day; this was succeeded by a few very cool days, with the temperature as low as 38°, on the 14th and 17th. The weather was fine after this, to the end of the month, the last day being the coolest, with the thermometer at 30°, and a light white frost.

The month of October was mostly fine; the first severe frost was on the 17th, when the dahlias, which were in full bloom the day before, were entirely killed, the temperature

falling to 28°. This was *twenty-one* days later than the first frost of 1851. The close of the month was very fine, with only one heavy frost on the 27th, and two rainy days.

November was a very different month from that of 1851. Very few rainy days occurred, and only three or four frosty mornings of any severity, 16° being the lowest.

December, up to the 12th, was as beautiful as the early part of October, with scarcely a frosty night. The 13th was cooler, with about one inch of snow, now (the 14th) just covering the ground, which is quite free from frost. The whole autumn has been exceedingly fine.

Summing up the characteristics of the year, they are—a severe cold winter; a late spring; a dry and warm summer; and a mild, prolonged and pleasant autumn. The winter, though severe, was more uniform in temperature than the average; there were very few even mild days from December to March. Such winters we deem by far the most favorable to vegetation, with the exception of slight damage to some doubtful hardy shrubs and the blossoms of some cherries and peaches. We experienced less injury from the effects of the winter than that of any other for the preceding ten years. We are aware that at the south and west the damage was very great; in some instances peach trees being killed quite to the ground; and we have recorded the injury done to the roses around Washington, (p. 134.)

A finer season for fruit has never been experienced. The pear has fully made up for its scanty crop of 1850 and 1851. As we stated in our report for the former year, (Vol. XII, p. 4,) the rest which the trees would obtain by a year's growth without fruit, would be more than made up by the succeeding crop. This has proved true; for fine pears, which in former years it has been difficult to obtain at any reasonable price, have been; this year, almost a drug in the market. The apple crop was very large and good; cherries and peaches were not abundant; raspberries and strawberries suffered much from the drought.

The results of the year are favorable to the ardent cultivator. We are reminded that in the unceasing course of

spring time and harvest, though the former may be sometimes too short, and the latter too scanty, the years of plenty are scattered along our path, and we have but to go on, regardless of a year's disappointment, with the same care, attention and labor, to reap the rich results which are in store for every zealous lover of good fruits and beautiful trees.

HORTICULTURE.

The attention of cultivators for some years, has been so excessively devoted to the introduction of new fruits, more particularly pears, that the art of cultivation has been greatly neglected. Hence we have seen that many varieties, received with a high reputation, have so disappointed expectation, that they have been engrafted with older and well known sorts. Scarce half a dozen years have elapsed since the general cry was that the Glout. Morceau was almost a worthless pear for general cultivation, dropping its fruit, and an uncertain crop. Now we find that it is not only a fine fruit, but in fact fully equal to, if not superior, to the Beurré d'Aremberg, which has had all the praise that it deserves. So too, with the Easter Beurré, Marie Louise, and many others. Many persons have cut off large and fine trees, from the mere rumor that they would fail to give satisfaction. Small, knurly and tasteless specimens were produced on young trees, and from such fruit the character of the variety was made out. But mark the change. With a better knowledge of the art of cultivation, these poor pears have been brought up to the size and perfection which had preceded their introduction, and now are becoming the most popular sorts. Individuals who pinned their faith upon the hearsay evidence of those who had not yet cultivated these fruits as they should be, cut off valuable trees, and are now glad to plant out young ones to supply their place. Such will always be the result of haste. Two things, therefore, are necessary before we condemn a fruit: one, that they should be well cultivated, and the other, that they should be ripened properly. The exhibitions of the past year have exemplified this: such fine specimens have

never been seen before ; they have indeed given a renewed impulse to the culture of this delicious fruit.

The two things necessary, as we have said, to a thorough knowledge of any fruit, are skilful cultivation and proper ripening. Of the former, every volume of our Magazine contains a fund of information. Of the latter, but little is known, and we are but just beginning to appreciate the importance of giving more attention to it. We have, therefore, in our last volume, collected all the information we could upon it. Two excellent articles (pp. 15, 116,) from foreign journals, have been published, giving the details of the construction of fruit-rooms, and the best mode of keeping fruit ; accompanied with such engravings as will convey all the information necessary to erect similar buildings. More information will appear in our present volume, and engravings will be given of fruit-rooms which have been erected by some of our amateur cultivators in the neighborhood. We have completed one for ourselves, which so far succeeds admirably. We have all the winter pears now, as hard and fresh as when gathered from the tree ; and we see no reason why the Glout Morceau should not keep till February and March.

The somewhat important question of special manures, does not seem to have attracted so much notice the last year as heretofore. Valuable to a certain extent, they have been carried to such extremes by some of their advocates, that they smack of what Mr. Russell calls that "unjustly insulted word"—humbug. A specimen of this is the experiments of Dr. Hull, of Newburg, N. Y., which we are glad to see have been pretty well sifted by Mr. S. W. Johnson, a student in the laboratory of the late Prof. Norton. The lemonade and cider which the Dr. gave his strawberries, as specific manures, seem odd substances enough to administer to plants, and the tannic acid of Prof. Mapes appears but little better. Mr. Johnson, in summing up his remarks, says that "tannic acid is adduced by Dr. Hull as one of the substances that is demanded as an increased correspondent and specific nutrition, and bears no proportion to the exact analysis,"

because the strawberry contains but a trace of it, while it seems to be so largely appropriated by the plant. But where is the evidence that the tannic acid has anything to do with the nutrition of the strawberry? Have not other cultivators produced strawberries equalling those of Dr. Hull, without the application of tannic acid? [Yes, much larger.]

"I conclude therefore," he says, "that Dr. Hull's experiments furnish no satisfactory evidence of the truth of his closing statement, that the practical cultivator *can* perfect the finest fruit in abundance and richness, by selecting potash from among the inorganic and tannic acid from among the organic constituents of this delicious gift of the 'Giver of all good.'

"However valuable Dr. Hull's experiments may be, practically, they are entirely too vague to have any effect in establishing theory. His fertilizing applications are either of very complicated, or of almost unknown compositions. The soil is unanalyzed. Organic and inorganic manures are used on the same plants. The physical and physiological conditions of the plant are not taken into account. In fine, the sources of error are so numerous, and so little understood, as to be incapable of limitation."

Such was our opinion on reading the Dr's experiments. We prefer to drink our lemonade and give the plants liquid manure. And when the Dr. raises as large strawberries as we have, without any of the gimcrackery of cider, tannic acid, saltpetre, &c., &c., we shall begin to think he has done something towards establishing the theory of specific manures. We would recommend to all who take an interest in this subject, our article at page 337.

An article of much value is that in reference to the absorbent power of soils, (p. 241,) copied from our foreign journals. Every cultivator should read it carefully, remember the lesson which it teaches, and in the application of manures, follow out the results which are detailed. A great deal has been said in some journals about tan bark, or spent tan, as a mulcher and manure for various plants. We have not occupied much space with the discussion of the question, as all

that has been written has detailed nothing new. As a mulcher, it undoubtedly answers as good a purpose as any similar substance, with the advantage over leaves, straw or hay, that it does not easily blow away, and is a cheaper article. That it does not possess any nutritive properties is so well known to every practical man of observation, we have not deemed it necessary to dispute the question with those who advocate its use for such a purpose. We have for years used tan for various purposes; such as banking up pits and frames in winter, plunging plants in summer, &c., &c., it being the cheapest material we could readily get. As a mulching for strawberries, it answers a very good purpose; but it is inferior to straw, as it does not keep the berries scarcely, if any cleaner, than they are without it. We have been so accustomed to its use that we have been quite surprised to find that many persons have supposed its recent recommendation for garden purposes was some new and wonderful discovery. According to some writers who have used it, it is the most miserable stuff which a man can bring into his garden. A writer in the *Rural New Yorker*, states that the only value he knew tan to possess was as a covering to drains. Here, he says, there will be "no trouble with 'acid' in the bark, or a waste of materials, already of themselves a good manure, in an endeavor to convert hemlock bark into a *manure*, when it has been steeped until all its enriching qualities (if it ever had any) have been extracted;" and further, that the attempts to convert tan into "*good manure* by *mixing* manure with it, reminded him of the cook who could make a good apple pie out of potatoes if you would give him the 'fixins.'" This is just our estimate of tan.

Mr. Jaques' article on transplanting large trees, (p. 529,) is a record of actual experiments, made by himself, and with the most perfect success. Those who would like to avail themselves of the growth of years, and produce an immediate effect, may venture to accomplish their object, if they will do it with the same care and personal attention given by Mr. Jaques. Herein lies the whole secret of his success. He left nothing to chance. Unless an individual can be

found to take charge of the work who feels some interest in the success of the trees, transplanting such huge specimens as Mr. Jaques chronicles had better be let alone.

The new fruits of the year have been numerous, particularly pears. Several new sorts have been figured and described by M. Leroy; among them a remarkable one, called the *Beurré Bachelier*, (p. 405). We have also figured and described some new and choice sorts. A report in our next number, from the President of the Massachusetts Horticultural Society, will notice such fruits of the year as are particularly new and interesting, and we shall only enumerate some which have proved fine after another season, or which have fruited for the first time, and exhibited promising qualities: of the former, we name *Beurré Giffart*, *Beurré Langelier*, *Vesouziere*, *Collins*, *Sheldon*, *Adams*, *Bonne des Zees*, *Josephine de Malines*, *Moyamensing*, *Oswego Beurré*, *Pratt*, *Tea*, *Triumph de Jodoigne*, *Doyenné Goubault*, *Princess Royal*, *Kingsessing*, *Lodge*, &c.: of the latter, *Grand Soliel*, *Calebasse d'Ete*, *Moore's Pound*, *Adams*, *Beurré Sterkman*, *Zepherine Gregoire*, *Poire des Chasseurs*, *Doyenné Defais*, *Bergamot Leseble*, *Beurré Merod*, *Inominee Patrie*, *Belle Julie*, *Marshal de la Cœur*, *Beurré Clairgleau*, &c. Of apples, the *Beefsteak*, *Cogswell*, *Primate*, *Manomet*, *Melon*, *Ladies Sweeting*, *Tufts*, and *Ledge Sweet*. Of cherries, *Bigarreau d'Esperin*. Our Pomological Gossip for the year has contained some account of most of these fruits, to which we refer all interested in new and fine varieties.

Under this head we should not omit to notice two very remarkable new vegetables; one, the *Old Colony Sweet Corn*, which we have often noticed, and of which a full history has been given by the raiser, the Rev. Mr. Pope, (XVI, p. 529); and the other, *Hovey's Extra Early Pea*, the earliest variety yet introduced. Mr. Pope, we are glad to know, has now raised a good stock, and Messrs. Hovey & Co. have purchased the whole, and will offer it for sale the coming spring. It is the greatest acquisition which has ever been made to this most delicious of American esculents. An analysis of the principal varieties of corn in cultivation, has been made by

Dr. C. T. Jackson, and, as will be seen by the following table, the Old Colony corn contains by far the greatest quantity of saccharine matter of the whole :—

No. 1.	Tuscarora, (Starch corn.)	Phosphates and starch, no oil or gluten.
" 2.	Jersey White Flint,	Gluten, oil, starch, phosphates.
" 3.	Southern Maryland,	Gluten, phosphates, starch.
" 4.	Sweet corn, Old Colony,	Dextrine, sugar, phosphates.
" 5.	Canada yellow,	Gluten, oil, starch, phosphates.
" 6.	Rice corn,	Gluten, oil, starch, phosphates.
" 7.	Pop corn,	Gluten, oil, starch, phosphates.
" 8.	Pop corn, Plymouth var.,	Oil, gluten, starch, phosphates.

It will entirely supersede all other sorts of sweet corn for the table. It is literally, when boiled, nothing but cream and sugar.

FLORICULTURE.

The introduction of new plants has been greater the last year than any preceding one for some time ; a much deeper interest is also manifested in the production of seedlings than heretofore, and many fine additions have been made to some of our most popular flowers. The Camellia, Verbena, and Japan lily, have attracted particular attention, and our American seedlings vie in beauty, if they do not surpass, any of the foreign productions. Few plants have attracted more admiration than the new Pomponé Chrysanthemums, to which we have alluded in another page. The herbaceous Pæonies are just beginning to be appreciated ; few plants have been more improved than these ; the new French varieties, which are yet quite rare, are superbly beautiful, and must command a prominent place in every flower border. Our descriptive list of twenty-six varieties ; (p. 360) received much attention among English amateurs, in whose gardens they are more rare than our own ; and the list was copied entire in the *Gardeners' Journal*.

There is one tribe of plants which our own gardeners have sadly neglected, saving one exception : we have reference to the rose. Every one is aware of the vast improvement in our Prairie roses ; from the small, almost worthless, Michigan bramble, have been produced, apparently without

the least care, more than *twenty* of the most beautiful running roses in existence. Now, if so much can be done in this case, why should not similar results flow from further experiments in the growth of seedlings? We have no doubt that our gardens might be made almost wholly independent of foreign acquisitions, were our amateurs to attempt the production of seedlings to one half the extent of the French cultivators, who have produced *three-quarters* of all the fine roses now known. Our climate is as favorable for the ripening of seed as that of France, and it only requires the attempt to be made to reap success.

In our last volume, some excellent communications have appeared, by our correspondent "Hortus," whose hints are worthy the attention of all lovers of plants. He has taken up the whole subject of in-door cultivation, and finished up (p. 498,) with a general recapitulation of the year's work, which should have the careful attention of all amateurs.

Hardy ornamental shrubs are more and more sought out every year. Our gardens are sadly deficient in them, and we welcome any attempt which shall be likely to increase these most desirable of all additions to our shrubberies and pleasure-grounds. The *Kalmia*, the *Rhododendron*, *Azalea*, *Ledum*, &c., &c., are those which are the most prominent, as well as the most beautiful, and worthy of general attention. The production of seedling varieties of greater hardiness, as well as of much more attractive appearance, will swell up our now somewhat meagre list of flowering shrubs.

The principal new plants of the year are, *Cantua depé- dens*, *Cappania grandiflora*, *Lantana delicatissima*, *Achimenes longiflora alba*, *Heliotropes Perfection* and *Louis Napoleon*, *Abutilon insigne*, *Salvia leucantha*, *Hardenbergia ovata*, &c., &c.; besides many new *Fuchsias*, *Lilliputian Chrysanthemums*, *Scarlet*, *Show*, and *Fancy Geraniums*, *Verbenas*, &c., most of which will be found noticed under our floricultural head. The most remarkable addition has been a new orange-colored *Globe*, of great beauty, introduced by Messrs.

Hovey & Co., from New Mexico; it will prove one of the greatest novelties of recent introduction to our gardens.

ARBORICULTURE.

Ornamental gardening is receiving a much greater share of attention than heretofore. A lively interest is manifested in the introduction not only of foreign trees and shrubs, suitable to our climate, but in the acquisition of our native trees, which yet remain, to a great extent, wholly unknown in our gardens. Of all the beautiful hardy oaks which Michaux so elegantly figures in his beautiful *Sylvia*, not more than three or four are at all made use of for ornamental planting. Other American trees, of great beauty, not so abundant as the oaks, yet sufficiently so to be better known, are rarely, if ever, seen in the grounds of our villa and suburban gardens. The fault of this, to a certain degree, is owing to the inability of our nurserymen to supply them, and partly to the ignorance of purchasers who know nothing of their beauty, and will try nothing but what they have seen everywhere, for fear they may disappoint their expectations. The only way to overcome this feeling and diffuse a taste for fine trees, is for nurserymen to plant out a few single specimens where they may be examined and their attractiveness at once established.

The introduction of many new evergreen trees will eventually change the character of our grounds. The constant recurrence in plantations of the Balsam Fir, Norway Spruce, and Arbor Vitæ, will soon be varied by the acquisition of the Black Austrian Pine, Scotch Fir, *Pinus excelsa*, *P. cémbra*, *Abies Smithiana*, *A. Webbiæna*, and others equally beautiful; the two first being admirably adapted to the most exposed and bleak situations on the seashore, where they thrive in a thin soil with great luxuriance. Nearly all the pines and firs which succeed in England will grow freely south of Philadelphia; but in the New England States it is necessary that experiments should be tried to find out which are hardy, before risking the loss of such as are yet high priced and difficult to procure. We shall endeavor to supply all the infor-

mation we can on this very important and interesting branch of arboriculture.

GARDEN ARCHITECTURE.

There has been a very great improvement in style of constructing greenhouses, conservatories, graperies, &c. Since the introduction of the curvilinear roofs, first erected by Mr. Gray, at Brighton, of which we have given an engraving, (Vol. XII, p. 379,) many houses have been built in various parts of the country on the same principle, with such improvements as would naturally be suggested, according to the materials used and the locality for building. Several have been erected in the neighborhood of Boston, by our correspondent Mr. Leuchars, and we intend soon to give plans and engravings of such as appear the best adapted for general construction. The old lean-to roofs are ill shaped structures, which can rarely be made to harmonize with other buildings, and consequently must be located in some out-of-the-way place, where they will not be conspicuous objects of a suburban residence. The curvilinear houses, on the contrary, may be made really ornamental objects, especially as detached buildings, and may be erected as near the mansion as convenient without detracting from the general features of the place.

We notice that some writer in the *Philadelphia Florist* speaks of a new mode of glazing, which he thinks should be called the "American system." This mode is to set the glass as heretofore, but instead of using putty on the surface, to give the rebate one or two good coats of paint. Now this system of glazing we were not only the first, we believe, to adopt, but we have not finished a house on any other plan for twelve years! We can show any one who will take the trouble to look, four houses, eighty-four feet long each, span-roofed, which are glazed on our system,—which certainly is American, as we know not of its adoption anywhere else. It is a great improvement upon the old plan; with an occasional painting, the sashes throw off the rain far better, and there is none of the constant attention and expense of putty-

ing up every year, as in the old mode of glazing. We have long recommended this system to all our friends who are constructing greenhouses. One of our houses is a curvilinear one, but not an atom of putty was made use of, only to bed in the glass.

COMMERCIAL GARDENING.

The season just closed has been one of greater activity with nurserymen than usual. A healthier state of the monetary affairs of the country has enabled purchasers to buy more liberally than the two previous years. In addition to this, a new market has been opened by the demand for trees in California. This has taken off the surplus stock of the larger nurseries in the Middle and Eastern States, and given additional impulse to the business everywhere. No doubt the abundant wealth of California will continue for some time, coupled with the fineness of the climate for the production of fruits, to require large quantities of trees, which for the present, must be supplied from the States.

HORTICULTURAL LITERATURE.

But few works have been published the past year. These are *Country Houses*, by the late Mr. Downing; *Walks and Talks of an American Farmer*, by Mr. Olmstead, forming 2 vols. of Putnam's Library; *Rural Agriculture*, by L. F. Allen; and 2 numbers of the *Fruits of America*, Vol. II. New editions have appeared of the *Fruits of America*, Breck's *Book of Flowers*, and Thomas's *Fruit Culturist*. Quite a change has taken place in the periodical press. The *Horticulturist* will hereafter be published at Rochester, edited by P. Barry. The *Cultivator* is reduced to 50 cents a year; and Mr. Tucker starts a new paper, called the *Country Gentleman*. The *Plough* gives way to the *New York Agricultor*, (weekly,) and the *Farm and Garden*, (monthly.) The *American Gardeners' Chronicle* is to appear weekly, at \$2 a year; and the *Philadelphia Florist* is to be augmented in size and improved in appearance, at \$2 a year.

OBITUARY.

Death has been busy among our eminent agricultural and horticultural writers. Last year we recorded the deaths of General Dearborn, Governor Hill, Mr. Skinner, and S. W. Cole; and we now have to add those of A. J. Downing, and Prof. J. P. Norton. Mr. Downing's was a sad death, and his loss leaves a void in the horticultural world which it will be found difficult to fill. Prof. Norton's death will be no less felt by all who take the least interest in agricultural improvement. As a scientific writer on agriculture he had no equal in the country; and had his life been spared, he would by his experiments and writings, have contributed much to our stock of agricultural knowledge.

ART. II. *On the Planting and Disposition of Ornamental Trees around Private Residences.* By R. B. L.

THE *expression* of trees and shrubs which may be planted to adorn the grounds around a villa residence, depends nearly as much upon their disposition as upon their individual rarity or their singularity of shape and the outlines of their form. All trees and shrubs when they have attained their full size, are possessed of some particular qualities not common to others: Thus the cedar, a tree very abundant on sterile and sandy ground, throughout most of the New England States, has a uniform unchangeable character, solemn and sombre in its appearance, and tending to fill the mind with emotions of melancholy and gloom; nor does it lose any of its dismal dreariness even when standing in the shrubbery among the most interesting exotics; its monotonous and unchanging color and shape is rather increased than diminished by the contrast. These circumstances have made this tree very unpopular with planters of taste, and hence we find it almost excluded from the neat shrubberies of villa residences. Notwithstanding the many faults which we hear

almost daily found with this dark-robed denizen of the ancient forest, it has also many redeeming qualities which render it exceedingly valuable as an ornamental shrub ; chiefest among which is—it is *evergreen*—and in the New England States hardy evergreens are not so very numerous that we can afford to exclude an indigenous shrub from our gardens, though it possesses neither the novelty of its namesake of Libanus, or the graceful elegance of the hemlock fir. Another property of this tree, is its unconquerable hardiness. It stands on bleak exposed promontories of the sea, as may be seen along the south shore of Massachusetts Bay, and indeed almost every other shore on the eastern coast, braving the summer's heat and winter's cold, where no other native evergreen would find a foothold. This property renders it a valuable shrub for forming a screen in exposed situations, where other evergreens would perish. For hedges especially, is this sturdy plant well adapted ; and it forms one of the finest evergreen hedges that can be made.

The despised condition of this tree, in New England, is strikingly contrasted by the value in which it is held in Europe. In England it is prized as a rare and interesting shrub, by no means common, although found in almost every collection of conifers. It is undoubtedly worthy of a place in every shrubbery ; but it must be sparingly introduced and managed cautiously, to form a happy harmony with the other shrubs. Not more than one single tree should be planted in one place, nor allowed to stand, if growing naturally there, unless it be on a rocky point, or promontory of the sea ; and then they ought to be thinned gradually, and other trees planted among them, to break the funereal character with which they otherwise invest the ground.

A very similar train of emotions, but in a different degree, is produced on the mind, by contemplating the falling branches of weeping trees, recalling to the contemplative mind, the drooping and downward progress of old age. The dark green foliage of the weeping ash,—the drooping spray and yellow color of the slender weeping willow, are meet

objects for silent, secluded scenes of solitude and haunts of meditation.

There appears to me to be more elasticity and cheerfulness in the weeping elm, and more stiff and uncompliant, though gracefully curved, branches of the pendulous horsechestnut and lime, which make them more fit objects for the smooth lawn and neat parterre. There is a peculiar elegance too, in the gracefully sweeping branches of the larch; and when clothed in its light, livid green foliage, is a remarkably pleasing object, and has a peculiarly pleasing effect on the sensitive mind. The oak, as all are aware, is suggestive of strength and majesty; the elm, of grandeur and sublimity; and the others, in like manner, are suggestive of ideas and emotions with which they have, in one way or another, become associated.

For planting on open situations, particularly if those situations are low and flat, we have no tree more capable of producing grandeur and sublimity, than the American elm, which may be moved when of very large size, and thus be made to form immediate features in the landscape. But if the ground be extensive, the effect will depend more on the outline and the extent of the plantation, than on the particular kind or variety of trees planted. But in by far the larger portion of villa residences of a few acres in extent, the effect produced on the mind of the spectator is either heightened or depressed by the kind and conformation of the individual trees; more especially is this the case with those who, having viewed the place as a whole, thus view the parts and specimens individually, and discovering nothing but one or two kinds of tree, the mind is disappointed. Very different is the result of a critical examination of a small domain, where the spectator views from the windows the general outline of the different trees and shrubs at a distance, until the mind becomes wearied with contemplating their various forms. Then, when the weather is favorable for taking a walk into the grounds, in the cool of the morning or evening, the mind recurs to the individual parts of the scene and examines them in order to find a continuation of pleasure. The

most effectual way of rendering those scenes that are most likely to be minutely examined, more interesting than they generally are, is to introduce a greater variety of shrubs and ornamental trees. In many shrubberies, or pleasure grounds so called, you can find nothing but the ordinary road-side trees, viz., the elm, maple, and perhaps a horsechestnut and lime, while for evergreens you discover nothing but the common Balsam fir, which the planters have thought too dear at a shilling apiece. We could name hundreds of villa gardens of this description, around Boston, but will at present forbear to particularize, in the hope that some really liberal men,—whom we also know to be men of good taste,—will take the hint from what is here stated, and plant some of the finer shrubs, such as abies and pinus, which are now introduced in many varieties; more especially the foliated shrubs, such as rhododendrons, kalmias, deodar cedars, mahonias, and hollies; and, above all, plant more of the Norway spruce and fewer of the bare-legged balsam, than is now filling every nook in the pseudo landscapes of many, otherwise pretty, country villas.

In grounds of a few acres in extent, introducing variety and beauty must be the principal object aimed at. The principle of grandeur in landscape gardening need not be attempted, or failure will be the result. Grandeur in planting depends more upon the whole than the parts, and the whole here is so small as to be incapable, from any point, of itself of impressing the spectator with ideas of grandeur, as is here understood. Small places, therefore, must depend on the variety and beauty of the trees and shrubs planted, and the disposition of the walks and other appendages of the ground, than on the mere extent of the whole. But let me make a few remarks on what is here meant by *variety*—certainly not *that* which some garden-makers seem to understand it; they appear to imagine that variety is produced merely by mixture, and consequently, their rule is, to mix as many kinds together as they possibly can procure, no matter what they are; and they never let two of the same species be seen at once. This is the common idea for what is termed variety

in pleasure grounds and shrubberies, which they follow as far as possible, in every place and under all circumstances alike, whether in a place containing six rods or six acres. But it cannot be asserted that this higglety-pigglety arrangement produces variety; on the contrary, it produces the most distracting incongruity. On the eye examining the whole if small, or the different parts if some acres in extent, it finds no harmony—no relief—no repose of effect on the mind—no difference of composition or change of character; or, if from a distance we look upon the outlines of such a shrubbery, it is, from the indiscriminate mixture of the same plants, more disagreeably dull and monotonous than if only two or three kinds of trees had been planted; an effect which is now produced by natural plantations.

This indiscriminate mixture of trees and shrubs on a lawn, or round a residence, is not variety, and is evidently produced by the ignorance of what constitutes variety; for it must be remembered that variety does not consist in the mere difference of individual and separate parts, but in the diversity of their effects when combined together—in a difference of character and composition. Very different is the effect of such a diversity from the other—it relieves the eye and pleases the mind, without burdening or fatiguing either; and we will find that instead of planting trees and shrubs that are most diversified, contiguous to each other, those are best suited to the purpose, that differ in the smallest degree from each other, while they are distinct in themselves.

Roxbury, Dec. 25th, 1852.

(To be Continued.)

ART. III. *Descriptions and Engravings of four new varieties of Pears.* By ANDRÉ LEROY, Angers, France.

ENCLOSED you will find the descriptions of four new pears, viz., Nouveau Poiteau, Marechal de la Cœur, Beurré Nantais, and Saint Jean Baptiste. I hope to be able to send you some others in a short time.

1. NOUVEAU POITEAU.

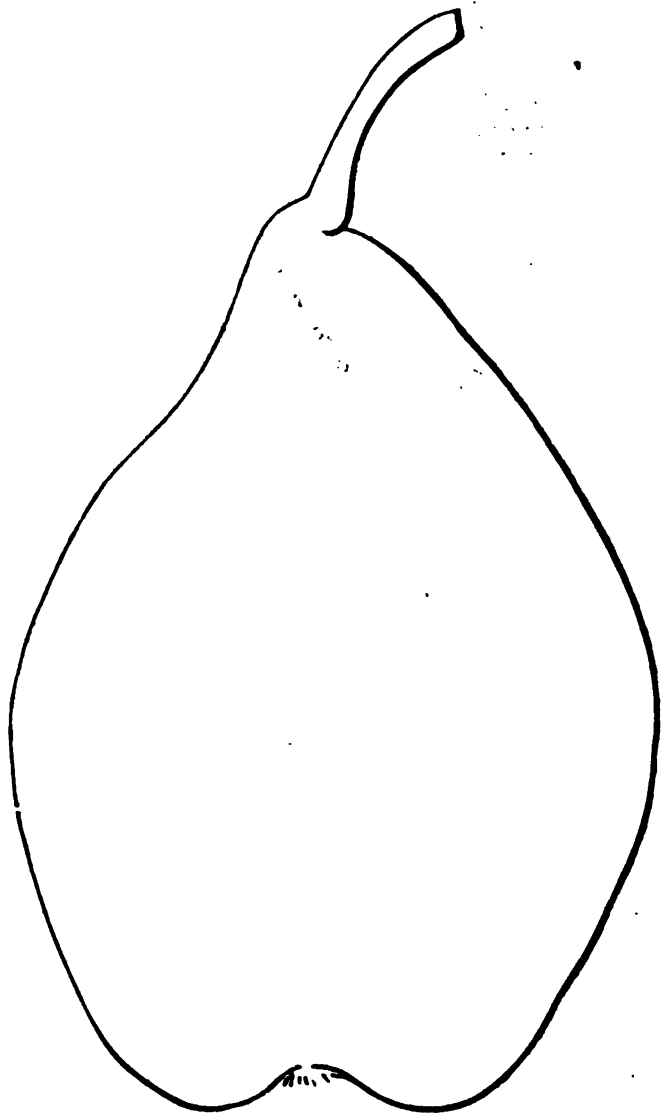


Fig. 1. Nouveau Poiteau.

A superb variety, obtained in Belgium by Van Mons, and described by Bivort.

The tree is very vigorous, with upright or fastigate branches, forming a fine pyramid: the shoots are violet, stout, long, and dotted with small, whitish-gray specks: the buds are small and rather prominent: the leaves are large, folded inwards, and regularly dentated.

This variety fruited for the first time this year, in the nursery of M. Andre Leroy, of Angers. Four beautiful specimens were produced, resembling the one of which the outline is annexed, (*fig. 1.*)

Fruit, very large, pyriform, irregular, swollen or rounded on one side about half of its height, and contracted on the opposite side near the stem, which is about an inch long and slightly curved: the skin is green, even at maturity, rough, dotted with detached russety points, thickest near and about the stem: the flesh is white, fine, melting, buttery, with a very abundant juice, sugary and good, of first quality. It ripens in September and October.

Bivort says this variety is very fertile; and we believe this to be true, from the number of fruit buds which cover the tree upon which these pears were produced.

It is a fine acquisition, for which we are indebted to the learned Van Mons.

[We have already figured and described this variety in our list of select pears, (Vol. XVIII, p. 420,) but we give the outline of M. Leroy, as our figure was much smaller than the specimens average when well grown.—Ed.]

2. SAINT JEAN BAPTISTE.

This variety (*fig. 2*) is announced in the catalogue of Bivort, under No. 670, as being a large fruit, melting, and of first quality; ripening in January and February.

One tree of this kind, planted three years since, in the school of fruits of M. Leroy, has borne several fruits, from which I am enabled to make the following description:—

The tree is of medium vigor, and forms a very beautiful pyramid: the branches are large and short: the buds large, full and prominent: the joints short: the wood marked with large gray points: the petioles are long: the leaves lanceolate

and very entire: the fruit is large, pyriform, though a little obtuse about the stem, very regular, with an uneven and somewhat knobby surface: the stem is short, curved, and swollen at the base: the skin is of a pale greenish yellow, scattered with numerous black and gray points, and several

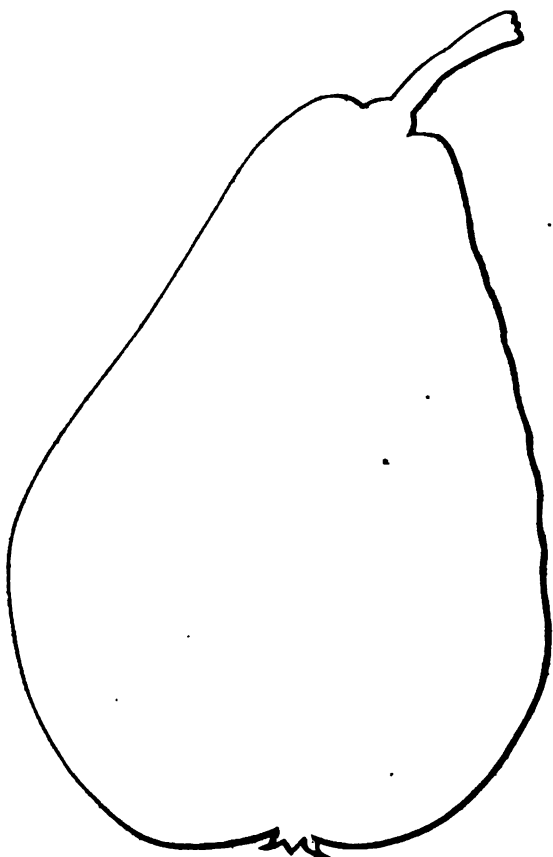


Fig. 2. Saint Jean Baptiste.

large spots of the same color around the stem; these spots are smaller near the crown, and of a yellowish gray: the flesh is white, fine, very melting and buttery: juice abundant, vinous, and slightly acid: the core is always very solid, and the seeds long and narrow. It ripens in October.

It is a superb and very excellent pear, of the finest quality, and one which I wish to be better known and possessed by all who cultivate our most esteemed fruits.

3. BEURRE' NANTAIS.

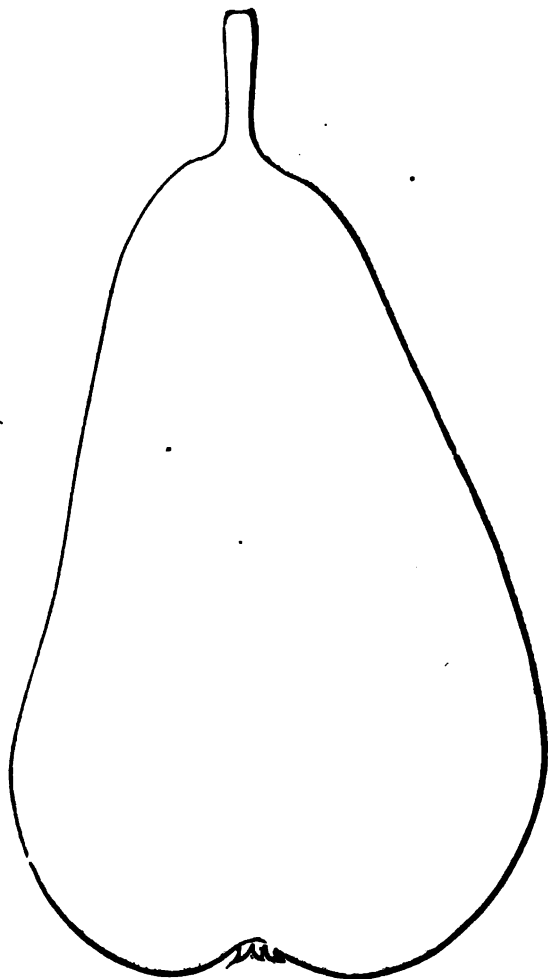


Fig. 3. Beurre' Nantais.

Skin, yellow, slightly dotted: flesh, melting, juicy, very sugary. Ripens in September.

This pear (*fig. 3*) was obtained at Nantes, and it is from that city that my friends have sent it to me, with the recommendation to propagate it extensively, on account of its excellent qualities.

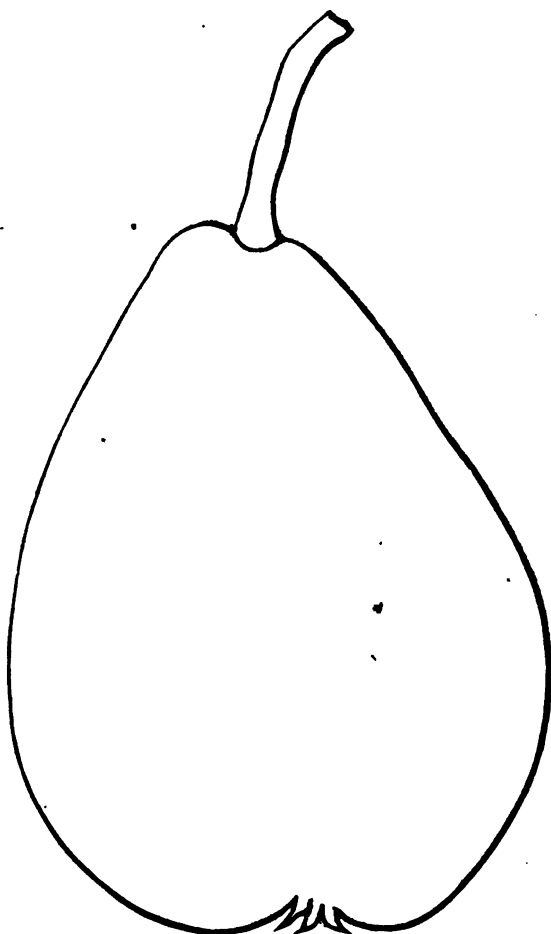


Fig. 4. Marechal de la Coeur.

I regret that I am not enabled to give a more detailed description; but M. Leroy having planted the only tree which he received in his fruit garden, I propose to complete this description after having seen the fruit.

4. MARECHAL DE LA CŒUR.

This variety (*fig. 4*) is not very new, as Bivort described it in 1847. According to him, it was obtained by Van Mons in 1841, when it was considered one of his best pears.

This year it has fruited for the first time, in the school of fruits of M. Andre Leroy, of Angers, upon a small plant three or four years old; and here is the description which I have made:—

Tree very vigorous, of pyramidal form: branches long, furnished with thorns at the ends, and covered with whitish-gray points: the buds are large, prominent and pointed: the leaves are very large and variously formed, many of them round: the tree, in its general appearance, (*ensemble*,) has a superb aspect.

Fruit very handsome, pyriform, occasionally slightly turbinate, regular, with an uneven surface, and which is rather rough: color yellowish green, highly tinted with vermillion on the side next the sun, and dotted with small dark specks all over the surface: the stem is crooked, and inserted in a cavity formed by a projection (*mamelon*) which is much higher on one side than the other: the eye is large and open, and the divisions of the calyx are short: the flesh is white, fine, melting, very juicy, vinous, high flavored, very agreeable. This superb and excellent pear ripens in October.

The tree, which has been growing four years, appears covered with fruit buds; so that in addition to its fine qualities, it appears to be exceedingly fertile.

ART. IV. *Floricultural and Botanical Notices of New and Beautiful Plants, figured in Foreign Periodicals; with descriptions of those introduced to, or originated in, American Collections.*

NEW PLANTS.—The introduction of new plants has, we believe, been greater the last year than any previous one. The New York and Philadelphia nurserymen have added

more largely than usual; some of them having visited Europe for the purpose of making selections personally. Our Boston dealers have also been industriously to work in adding everything new and fine. The spring catalogues will undoubtedly show what each have for sale. Such as we have in our own collection we shall notice as they come into bloom; and we shall be pleased to give any account of such as may bloom with our New York and Philadelphia friends if they will only send us the information.

CAMELLIA, VAR. MRS. COPE.—This is the name given to a new variety of much beauty, raised in Philadelphia by Mr. Sherwood, and offered for sale by Messrs. Ritchie & Buist, who purchased the entire stock. It is a nearly white flower, of fine imbricated form, each petal delicately striped with pink. The plants are now offered for five dollars each.

APHELA'NDRA AURANTI'ACA.—This splendid species of this showy tribe is now in fine bloom in our collection. It differs from *A. cristata* in having a broader and more open flower; in the heads of blossoms, which are shorter and more compact; and in the color, which is a fine orange, instead of scarlet. The foliage is more glossy and showy than the *A. cristata*. It is a fine acquisition to our summer blooming greenhouse plants.

NEW CINERARIAS.—This elegant class of winter blooming plants is just beginning to be appreciated. The improvements which have been made in the varieties by the English cultivators have entirely changed its character, and it is now established among the favorites of the florist. In place of the starry, dingy-colored blossoms of former years, we now have fine, circular, full flowers, of the most distinct and beautiful shades, edged, tipped, shaded and self-colored. The habit of the plant has also been improved; and they now, when well grown, form compact plants, with many-branched stems, showing hundreds of blossoms.

Our amateurs have only to commence the production of seedlings in order to render themselves independent of the expense of importation, which is somewhat difficult to effect in good order. Our climate is better adapted to the production

of seedlings than that of England; and it only needs a little care and pains to raise thousands of plants. The following are some of the newly received English varieties:—

Fairy Queen, (Henderson's,) Electra, (Ivery's,) Ringleader, Lady Vernon, (Rogers,) Marginata, (Henderson's,) Delight, &c.

Some of the finest of the older sorts are Jetty Trefftz, Bessy, Attala, Celestial, Cærulæa, Perfecta, Rosy Morn, Anne Marie, Beauty of Utica.

CAPPANIA GRANDIFLORA.—This beautiful plant, somewhat resembling a gloxinia, described in our volume for 1851, (XVII, p. 267,) we notice has been introduced into Philadelphia. It is a very showy plant, and will be a great addition to our summer flowering greenhouse plants.

188. **MALCO'LMIA LITTOREA** Brown. SEASHORE MALCOLMIA.
(*Cruciferae.*) South Europe.

A hardy annual; growing one foot high; with pinkish purple flowers; appearing all summer; grown in any good soil; increased by seeds. Bot. Mag., 1852, pl. 4672.

Syns. *Hesperis littorea*, Lam. *Cheiranthus littoreus* L.

An old plant, introduced as long ago as 1683, but which has hitherto never been figured. It grows throughout South Europe, its northern limit being Nantes. It is an annual, with erect, flexuose, branching stems, about a foot high, with linear-lanceolate leaves, and terminal racemes of delicate bright pink, or pinkish purple flowers. Seeds were sent to Kew from Portugal, and the plants bore their "lovely flowers during the summer and autumn." (*Bot. Mag.*, Sept.)

MISCELLANEOUS INTELLIGENCE.

ART. I. *Massachusetts Horticultural Society.*

Nov. 6.—An adjourned meeting of the Society was held to-day,—the President in the chair.

Mr. D. T. Curtis tendered his resignation as one of the Vegetable Committee, which was accepted.

Catalogues were received from A. Leroy, of Angers.

Wm. Young and Geo. B. Durfee, Fall River; Dennis Murray, Roxbury; Geo. W. Wilson, Malden; Wm. T. Andrews, Dorchester; Dr. E. A. Kittredge, Boston; and Peter Lawson, Lowell, were elected members.

Adjourned four weeks, to December 4.

Exhibited.—Fruits: From H. Vandine, apples—21 varieties; pears—15 vars. From N. D. Chase, apples—2 vars. for name; pears—Duchess of Angouleme, extra fine. From C. W. James, pears—Duchess of Angouleme, specimens weighed 1½ pounds. From G. Walsh, pears—4 vars. From S. Downer, Jr., pears—Fulton, Jealousie, Duchess of Angouleme, Van Mons Leon le Clerc, all extra fine specimens. From E. Brown, apples—Hubbardston, fine; pears—Fulton, fine. From F. B. White, by D. T. Curtis, pears—Dix, fine. From C. S. Holbrook, melons—Spanish, 37 lbs.; Mountain, 44 lbs.

Fruits tested.—From Hovey & Co., pears—Fondante de Malines, good; Lewis, Grand Soliel, superior.

A barrel of apples, received from the Adrian Horticultural Society, Michigan, had become so much bruised by transportation, as to render the specimens almost useless for exhibition. The few that were in condition, gave evidence of good culture, were *very juicy*, and in that respect excelled any heretofore received from the West.

Nov. 13.—Exhibited. Fruit: From J. Stickney, pears—Columbian, Duchess of Angouleme, Beurré Diel, Lawrence, fine. From S. Downer, Jr., pears—Glout Morceau, fine, Beurré Diel, fine; apples—Baldwin, Harvey. From A. W. Stetson, pears—Grey Doyenné, fine. From G. Walsh, pears—Vicar, Beurré Diel, Duchess. From J. F. Allen, 9 var. of grapes.

Fruits tested.—From F. Dana, seedling pears—Martha Anne, excellent; No. 10, large, and promises well; No. 16, small and good; No. 17. From Hovey & Co., Lawrence pears, superior. From G. Walsh, Beurré Diel pears, fine. From A. W. Stetson, Winter Nelis pears; Black Hamburg Seedling grapes. From J. F. Allen, Portugal Muscat grapes.

Nov. 20.—Exhibited. Fruit: From E. Cleaves, pears—Winter Nelis, Beurré Diel. From S. Downer, Jr., pears—Bezi de la Motte, Fulton, Duchess of Angouleme. From M. P. Wilder, from C. Dubois, apples—Lucy, a seedling of good promise. From H. Vandine, pears—Long Rose Water. From J. Stickney, apples—Hubbardston, Minister, Melon, Yellow Bellflower. From A. W. Stetson, pears—Beurré Diel, fine. From C. Stetson, grapes—Isabella. From J. Borden, Beurré Diel, 5 specimens, weighing 5 lbs. 2 oz. From S. Leeds, Duchess of Angouleme. From F. Dana, Columbia. From C. M. S. Churchill, pears—Catillac; apples—N. Pippin, Nonesuch, for a name. From J. Fowler, Beurré Diel, extra fine; Beurré Clairglean. From J. B. Moore, apples—Hubbardston, Melvin Sweet. From Hovey & Co., Fondante de Malines, Triumph of Jodoigne, Lawrence, and Belle Epine Dumas.

Fruits tested.—From J. F. Allen, Ropes's pear, a handsome pear of fair quality. From F. Dana, Martha Anne, large, of fair quality; No. 16, small, sweet and dry; No. 5, baking. From J. Fowler, Beurré Clairglean, a new pear, large, handsome, and promising to be a valuable variety. From H. Vandine, Marie Louise, super; McLaughlin, superior. From J. Stickney, Beurré d'angelier, not mature.

Dec. 4.—An adjourned meeting of the Society was held to-day,—the President in the chair.

Dr. Wight, Capt. Lovett, and H. Vandine, were appointed a committee to nominate a Committee of Arrangements for the ensuing year.

The President, Treasurer, and M. P. Wilder, were appointed a Committee to settle with the Mount Auburn Cemetery.

Geo. Southack, Boston, was elected a member.

Adjourned one week, to December 11.

Dec. 11.—An adjourned meeting of the Society was held to-day,—but no important business was transacted.

Exhibited.—**FRUITS:** From H. Vandine, Glout Morceau, Passe Colmar, New Long Rosewater, and Beurré d'Aremberg, all fine. From A. Cushing, extra fine Passe Colmar. From J. Dane, very large and fine Winter Nellie. From S. Downer, Jr., fine Easter Beurré, and Beurré Rance. From Hovey & Co., Beurré Langelier, very fine. From Dr. John Wheeler, Burlington, Vt., Rosseau, Red Streak, Scarlet Nonpareil, Cornish Gilliflower, Jonathan.

Fruits tested.—From Hovey & Co., Beurré Langelier, superior; Josephine de Malines, fine; March Bergamot, good, peculiar flavor; Belle Henriette; Bezi Vaet, good. From H. Vandine, Glout Morceau, fine.

Dec. 18.—An adjourned meeting of the Society was held to-day,—the President in the chair.

Mr. Cabot, from the Committee on Gardens, and Mr. Breck, from the Flower Committee, made their reports, which were accepted.

Mr. C. M. Hovey, from the Committee appointed for that object, reported that the Chairman of the Flower Committee have a compensation of \$75 a year. Accepted.

Capt. Lovett, C. M. Hovey, and Mr. Austin, were appointed a Committee to consider the expediency of awarding some testimonial to the Chairman of the Committee of Arrangements.

Adjourned one week, to December 24.

Exhibited.—**FRUITS:** From J. Lovett, apples—Bottle Greening, Pigeonette, Cogswell, Minister, Lady Sweeting; pears—Columbia, Echasserie. From H. Vandine, pears—Glout Morceau, Long Rose Water, Van Mons Leon le Clerc. From J. Gordon, pears—Jaminette, Easter Beurré. From J. Plimpton, pears—Glout Morceau. From J. Fowle, pears—Glout Morceau. From J. B. Moore, apples—Porter, Baldwin, Bellflower, R. I. Greening, Hunt's Russet. From J. W. Foster, 4 dishes apples, without name. From J. Dane, for John Lodge, pears—Glout Morceau. From T. E. Andrews, pears—Beurré d'Aremberg, extra fine specimens, from a tree, on quince, set out only three years ago. From A. W. Stetson, melons—Mountain Sweet.

Dec. 24.—An adjourned meeting of the Society was held to-day,—the President in the chair.

The Transactions of the New York Agricultural Society were received, and the thanks of the Society voted for the same.

The Committees on Fruits and Vegetables made their reports awarding premiums for 1852, which were accepted.

The Executive Committee reported the same appropriations for premiums as last year, viz., twenty-two hundred dollars.

It was voted, that schedules of prizes be printed.

Mr. Wilder read a letter in reference to the raising a fund for erecting a monument to Mr. Downing, and Messrs. Austin, Curtis, and Breck, were appointed a Committee to solicit subscriptions.

Meeting dissolved.

Exhibited.—**FRUITS:** From J. F. Allen, several varieties of grapes, among them the Prince Albert. From H. Vandine, Glout Morceau.

REPORT OF THE COMMITTEE ON GARDENS, AWARDING PREMIUMS FOR 1852.

The Committee on Gardens now submit their Report. During the year they have visited the greenhouses, graperies, gardens and grounds of all persons who notified the Committee that they wished to be considered as competitors for the prizes offered by the Society; and also made calls at the residences of several gentlemen, who had invited your Committee to visit their gardens, without intending to compete for any prize. Your Committee have been gratified in observing everywhere, while on these excursions, evidence of a continually increasing interest in rural pursuits, and a constantly improving method of cultivation. The prizes offered by the Society have been too recently established, perhaps, to have yet exercised much influence on the objects they were intended to promote; but it is believed their beneficial effects have not, even now, been wholly unfelt.

In making their awards your Committee have been controlled by the Rules established by the Society, and, in some instances, where the requirements were not exactly complied with, or where circumstances in their opinion rendered it advisable, have availed themselves of the discretionary power granted them by these Rules, of allowing a gratuity instead of awarding a prize.

The several Committees of the Society have sometimes, though rarely, awarded prizes to the gardeners of competitors, or other persons exhibiting in their names, instead of to the owner or grower of the article exhibited. This course is, in the opinion of your Committee, liable to objections, and they have therefore felt it incumbent on them in all cases, to make their awards directly to the owners of the gardens, &c., visited, instead of to the persons having them in charge. It is desirable that there should be a uniform rule upon this subject, to which adherence should be expected of all of the Standing Committees of the Society.

On the 25th of March your Committee visited the greenhouse of Mr. Jonathan French of Roxbury, and the graperies of Messrs. Hovey & Co., of Cambridge; a very heavy fall of snow the night previous made the day selected not very propitious to their design, and perhaps prevented, in some degree, the objects examined from being seen under the most favorable aspects.

The greenhouse of Mr. French seemed to your Committee, in the completeness of all its details, and in convenience of arrangement, one of the best they had ever visited. The house is about 60 feet in length, and built at a cost of about \$3000. By an improved method the hot-air pipes are

so arranged as to allow of the heat being thrown into any part of the house that may be desired. The house was well stocked with choice plants, all in fine condition, and there was every appearance in the management, both of the house and the plants, of scientific skill, combined with neatness and economy. In the construction of his forcing pits Mr. French seems to have adopted the method of McPhail, the manure for heating them being placed outside the walls of the pits, instead of at the bottom, as is the customary mode. In them, even at this early season, the cucumber vines were bursting into blow. The grounds about the residence of Mr. French consist of about eight acres, laid out in gardens and pleasure grounds.

The object of your Committee in their visit to Messrs. Hovey & Co. was mainly to examine their graperies; these are somewhat extensive, consisting of a cold, as well as of a forcing house, neither of them, however, exclusively devoted to raising grapes, but used also for other purposes. At the season of the visit of your Committee, in the cold house the vines were not in an active state; in the forcing house the fruit was setting finely, the vines looked vigorous and thriving, and everything indicated skill and judgment in their cultivation. Messrs. Hovey & Co. have in their grounds a very considerable extent of glass, consisting of 5 houses, 4 of them with span-roofs, requiring in winter the labor of eight men. The greenhouses and stoves were stocked with a choice collection of rare plants, all apparently in fine condition. In the Camellia house, the plants, though out of bloom, were growing vigorously. The Geraniums were not yet in flower; of these last, Messrs. Hovey & Co. have many of the new fancy sorts. Messrs. Hovey & Co. had just received from Europe an invoice of new plants, among which were many shrubby Pæonias and several new Roses. Among the other novelties of the collection some very fine Cinerarias attracted attention, as *Cerulea perfecta*, a fine blue; *Attila* and *Annie*, both purple; *Beauty of Utica*, a blue; *Glow Worm*, of a fine crimson; *Joan d'Arc* and *Bessie*, of a maroon color. The flowers of all these were large, and the colors brilliant. In the greenhouses *Nemophila maculata*, with its beautiful flowers, white, spotted with blue, and *Azalea Gledstanesii*, with white flowers striped with pink, were both conspicuous objects. In the propagating house there was a large stock of healthy young plants.

On the 22d July your Committee inspected the gardens of Mr. John Gordon at Brighton. Mr. Gordon devotes his grounds to raising fruits and vegetables, for the supply of the market. Mr. Gordon being one of the most judicious cultivators, doubtless finds this occupancy of his land for a double purpose, economical and advantageous. Everything about the grounds showed good management. From some portions of his land Mr. Gordon obtains two and three crops a year. The fruit trees were thriving, and generally covered with a fine crop of fruit.

On the same day your Committee visited the gardens and grounds of John P. Cushing, Esq. at Watertown, calling, on the way, at the place of Josiah Stickney, Esq., in the same town. Of the place of Mr. Stickney it is not now the intention of your Committee to speak,—as that gentleman was understood not to be, at the time, a competitor for the prizes of the So-

ciety, and the visit made to him was not in an official capacity,—farther than to say, that it is stocked with a large collection of fruit of rare and choice varieties, cultivated with scientific skill.

The gardens and grounds of Mr. Cushing are so well known, and have been so often described, that any attempt at a description, or an enumeration of their contents on the present occasion, would be superfluous. Under the supervision and skilful management of Messrs. Shimmin and Evers, the well-deserved reputation of this place, as comprising within its limits most that was rare and beautiful, useful and ornamental, as affording evidence of great artistic taste in laying out its grounds, and of knowledge and ability employed in their cultivation, seems to be well maintained. At the time of the visit of your Committee, the place was seen under very unfavorable circumstances; a severe drought prevailed. It was at a season of the year when the greenhouse plants and roses were stripped of flowers, and in the forcing houses the vines and fruit, while the flowering plants of a later season were not yet in blow, or the later fruits yet ripe; still, there was much to interest, and everywhere proofs of the taste and judgment of the proprietor, and of the skill and good management of the superintendents. During the past year Mr. Cushing had been unfortunate with his pear trees, many of them having died.

On July 29th your Committee examined the garden of Mr. Tudor at Nahant. This place of Mr. Tudor's is one of the most striking that has come under their observation, combining, as it does, architectural taste in the buildings, beauty of situation and extensive views, with well arranged grounds, and the application of the most approved discoveries of mechanical ingenuity, to the purposes of convenience, together with a large collection of fruit trees of the choicest varieties, and all the appliances of enjoyment and comfort called for in a villa residence. Everything was in good order. The trees and plants in the gardens seemed particularly flourishing, and this, notwithstanding the adverse circumstances of a situation naturally uncongenial, from its exposure to high winds, blowing directly over and from the Bay, and of a soil hard and sterile. These seemingly insurmountable obstacles, have been skilfully overcome, in the first instance, by the erection of high latticed fences and walls around the fruit gardens, creating a very perfect artificial shelter; and in the latter, by trenching the soil together, with the application of suitable fertilizing agents. Mr. Tudor's house is situated on the brow of a hill, so that the ground slopes from it in two directions, and it is upon the descent on each side of the house, that the gardens are situated. This method of planting his trees, on the descending ground, Mr. Tudor thinks of great advantage, because, by throwing up a slight embankment of earth on the lower side of each tree, and suitably removed from it, somewhat in the form of a crescent, the progress of the rain water as it flows down from the upper part of the ground, is arrested about each tree, in the basin formed by these crescent shaped embankments, and thus a much more copious watering is provided, than if the trees were on level ground. Mr. Tudor has great confidence in the stimulating effects of a copious supply of rain water to his trees, as proved by a

great increase in the size of the fruit, and in the growth and vigor of the tree. In the lower part of the grounds there is a spring, the waters of which, by means of a hydraulic ram, are thrown up into a reservoir on the highest part of the grounds, furnishing a supply for the house and offices. Mr. Tudor is very successful in the removal of large trees from a considerable distance, pursuing therein, it is supposed, in some respects, the method of Sir Henry Stuart, and creating an artificial shade for the tree after its removal. His pears have long been celebrated for their size and beauty, and an examination of the method pursued by him in cultivating this fruit, together with the very many other objects for instruction there to be found, renders a visit to his grounds, both to the amateur and skilful cultivator, one of great interest. Mr. Tudor has several fields connected with his gardens, from which he raises fine crops of wheat, corn, potatoes, &c., but as these do not come within the province of your Committee, no remarks respecting them are called for at their hands.

As in some instances, in the gardens or grounds visited by your Committee, such portions of them as were offered for examination, in reference to the prizes offered by the Society, were not exclusively devoted to one particular object, and thus could not strictly be classed in either of the divisions under which such prizes are placed, your Committee have resorted to allowing gratuities, where such seemed worthy of especial notice.

With these explanatory remarks they report the following as their award of prizes for the past year.

For the Committee,

JOSEPH S. CABOT, *Chairman.*

AWARD OF PRIZES BY THE COMMITTEE ON GARDENS FOR 1852.

To Jonathan French, of Roxbury, for the best and most economically managed greenhouse, the first premium of	\$25 00
To John Gordon, of Brighton, for his fruit and vegetable garden, a gratuity,	15 00
To Messrs. Hovey & Co., for their graperies, a gratuity,	15 00
To John P. Cushing, of Watertown, for his well arranged and neatly kept pleasure grounds, a gratuity,	15 00
To Frederick Tudor, of Nahant, for his well managed and skilfully cultivated gardens, and for the neatness displayed therein, for his well-kept grounds, and for the scientific skill and ingenuity exhibited in overcoming great natural obstacles to successful cultivation, a gratuity of	25 00

REPORT OF THE COMMITTEE ON FLOWERS,

AWARDING PREMIUMS FOR 1852.

The Committee on Flowers make the following report of Premiums awarded, and gratuities recommended, for the year 1852, as follows:—

CAMELLIAS.—For the best twelve varieties, to M. P. Wilder,	\$8 00
For the second best, to A. Bowditch,	6 00
AZALEAS.—For the best six varieties, to Hovey & Co.,	6 00

OPENING OF THE HALL IN MAY. PREMIUMS AWARDED.

PELARGONIUMS.—For the best six varieties, in pots, to A. Bowditch,	\$6 00
CALCEOLARIAS.—For the best six varieties, to H. Schimmin,	3 00
For the second best, to M. P. Wilder,	2 00
GREENHOUSE PLANTS.—For the best display, not less than 20 pots,	
to H. Schimmin,	20 00
For the second best, to A. Bowditch,	15 00
For the third best, to M. P. Wilder,	10 00
HYACINTHS.—For the best display, not less than 20 varieties, to R.	
M. Copeland,	5 00
For the second best, to J. Breck,	3 00
CUT FLOWERS.—For the best display, to P. Barnes,	3 00
For the second best, to A. Bowditch,	2 00
PANSIES.—For the best twelve varieties, to P. Barnes,	4 00
For the second best, to J. Mann,	3 00
For the third best, to C. F. Chaplin,	2 00
TULIPS.—For the best thirty varieties, to S. Walker,	8 00
For the second best, to J. Breck,	6 00
HAWTHORNS.—For the best display, to Winship & Co.,	3 00
For the second best, to Hovey & Co.,	2 00
HARDY AZALEAS.—For the best display, to Hovey & Co.,	5 00
For the second best, to Winship & Co.,	3 00
HERBACEOUS PÆONIES.—For the best 10 varieties, to M. P. Wilder,	5 00
For the second best, to Hovey & Co.,	3 00
For the best display, to M. P. Wilder,	3 00
ROSES.—Class I.— <i>Hardy Roses</i> . For the best thirty varieties, to	
M. P. Wilder,	8 00
For the second best, to Hovey & Co.,	6 00
For the best display, to M. P. Wilder,	3 00
Class II.—For the best twelve varieties, to M. P. Wilder,	5 00
For the second best, to Hovey & Co.,	3 00
Class III.— <i>Hardy Perpetual Roses</i> . For the best ten varieties, to	
M. P. Wilder,	5 00
For the second best, to Hovey & Co.,	3 00
For the best display, to Hovey & Co.,	3 00
<i>Prairie Roses</i> .—For the best display, six varieties, to Hovey & Co.,	5 00
For the second best, to Winship & Co.,	4 00
RHODODENDRONS.—For the best display, to Hovey & Co.,	5 00
For the second best, to Winship & Co.,	3 00
CARNATIONS AND PICOTEE PINKS.—For the best ten varieties, to	
Hovey & Co.,	5 00
For the second best, to C. F. Chaplin,	3 00
For the best display, to C. F. Chaplin,	3 00
HOLLYHOCKS.—For the best display, to P. Barnes,	4 00
For the second best, to Hovey & Co.,	3 00
For the third best, to H. Schimmin,	2 00

SUMMER PHLOXES. —For the best ten varieties, to Hovey & Co.,	\$6 00
DOUBLE BALSAMS. —For the best display, to J. Nugent,	3 00
For one display, in pots, to A. Bowditch,	3 00
AUTUMNAL PHLOXES. —For the best ten varieties, to J. Breck & Son,	6 00
For the second best, to P. Barnes,	4 00
For the third best, to Hovey & Co.,	2 00
GERMAN ASTERS. —For the best display, to Hovey & Co.,	4 00
For the second best, to J. Nugent,	3 00
DELPHINIUMS. —For the best display, to P. Barnes,	6 00
For the second best, to J. Breck,	4 00

PREMIUMS AWARDED AT THE ANNUAL EXHIBITION.

PLANTS IN POTS. —For the best twenty plants, to Hovey & Co.,	12 00
For the second best, to H. Schimmin,	10 00
VASE BOUQUETS. —For the best pair for Bradlee Vases, to Hovey & Co.,	10 00
For the second best, to H. Schimmin,	8 00
For the Society's Vases. —For the best pair, to J. Nugent,	10 00
For the second best, to Winship & Co.,	8 00
PARLOR BOUQUETS. —For the best pair, to Hovey & Co.,	6 00
For the second best, to A. Bowditch,	6 00
For the third best, to J. Nugent,	5 00
For the fourth best, to T. Page,	3 00
CUT FLOWERS. —For the best display, to P. Barnes,	8 00
For the second best, to Hovey & Co.,	6 00
For the third best, to J. Nugent,	4 00
COCKSCOMBS. —For the best six plants, in pots, to A. McLennan,	3 00
For the second best, to H. Schimmin,	2 00
HERBACEOUS PERENNIALS. —For the best display through the season, to P. Barnes,	10 00
For the second best, to Winship & Co.,	6 00
For the third best, to J. Nugent,	4 00
ANNUALS. —Best display through the season, to P. Barnes,	10 00
For the second best, to J. Nugent,	6 00
FLOWERING SHRUBS. —For the best display through the season, to Winship & Co.,	10 00
BOUQUETS. —For the best display through the season, to J. Nugent,	5 00
For the second best, to T. Page,	3 00
DARLIAS. —Division A, Premier Prize.	
For the best twelve dissimilar blooms, no award.	
Specimen Flower. —To J. Hyde & Son,	3 00
Various Colors. —For the best yellow, to J. Nugent,	1 00
For the best white, to J. Nugent,	1 00
For the best dark, to Hovey & Co.,	1 00
For the best striped, to Hyde & Son,	1 00
For the best scarlet, to J. Nugent,	1 00

Division B.—Class I.—For the best twenty-four blooms, to Hovey & Co.,	\$7 00
Class II.—For the best eighteen blooms, to J. Nugent,	6 00
For the second best, to P. Barnes,	4 00
Class III.—For the best twelve blooms, to J. Nugent,	5 00
For the second best, to Parker Barnes,	3 00

GRATUITIES.

To Hovey & Co., for new orange colored Gomphæna,	3 00
To J. Breck, for summer phloxes,	4 00
To J. Breck, for balsams,	3 00
To P. Barnes, for German asters,	3 00
To J. Nugent, for dahlias,	5 00
To Hovey & Co., for dahlias,	4 00
To P. Barnes, for dahlias,	3 00
To Hovey & Co., for Bignonia venusta,	5 00
To A. Bowditch, for azaleas and cinerarias,	4 00
To A. Bowditch, for orange trees,	3 00
To A. Bowditch, for Veronica Andersoni,	5 00
To H. Schimmin, for Allamanda grandiflora,	3 00
To H. Schimmin, for alstræmerias,	3 00
To H. Schimmin, for Dipladenia,	3 00
To H. Schimmin, for plants,	5 00

PREMIUMS AND GRATUITIES AT THE WEEKLY EXHIBITIONS.

To A. McLennan, for bouquets, cut flowers, &c., at weekly shows,	2 00
To P. Barnes, for the same,	21 00
To J. Nugent, for the same,	16 00
To T. Page, for the same,	3 00
To W. Kenrick, for the same,	5 00
To Miss Bruce, for the same,	1 00
To J. Breck, for the same,	2 00
To Miss Russell, for the same,	9 00
To Miss Mary M. Kenrick, for the same,	7 00
To Winship & Co., for the same,	12 00
To Hovey & Co., for the same,	2 00
To E. M. Richards, for the same,	7 00
To A. Bowditch, for the same,	5 00
To B. Harrington, for the same,	1 00
To J. A. Kenrick, for the same,	5 00
To W. E. Carter, for the same,	7 00
To J. S. Cabot, for the same,	2 00
To J. Hovey, for the same,	3 00
To S. Walker, for the same,	1 00
To Col. Loring, for the same,	1 00
To J. Bamstead, for the same,	1 00

To H. Schimmin, for the same,	\$3 00
To J. L. Boyden, for the same,	1 00
To R. G. Bell, for the same,	3 00
To A. J. Lord, for the same,	1 00
To J. W. Crafts, for the same,	2 00
To L. Davenport, for the same,	2 00
To C. Copeland, for the same,	3 00
To P. Barnes, for seedling <i>Azalea indica</i> , the Lowell Gold Medal,	40 00

GRATUITIES AT THE ANNUAL EXHIBITION.

To Thomas Page, for plants,	8 00.
To Winship & Co., for cut flowers,	3 00
To Miss Russell, for basket of flowers,	5 00
To M. M. Kenrick, for basket of flowers,	2 00
To Orr N. Towne, for large bouquet,	5 00
To C. Copeland, for cut flowers,	5 00
To M. P. Wilder, for plants,	3 00
To Cheever Newhall, for plants,	3 00
To I. M. Howard, for verbenas,	3 00
To Messrs. Burr, for floral design,	8 00
To Henry Waldo, for floral design,	5 00
To Charles Copeland, for floral design,	5 00
To A. D. Webber, for bouquets,	3 00
To W. E. Carter, for bouquets,	2 00

REPORT OF THE COMMITTEE ON FRUITS,

AWARDING PREMIUMS FOR 1852.

The Committee on Fruit submit their award of prizes for the year 1852.

As might have been expected from the zeal of many individual members of the Society, the labors of this Committee have been this year much increased, both in interest and activity; the number of new and valuable fruits brought under its notice, has exceeded that of former years, and it is with pride and gratification that the Committee submit to the Society, and through it to the public, the following Report:—

Owing to the inclement season during the period of the cherry blossoms the fruit in most situations was much injured, and in some totally destroyed; notwithstanding which the contributions of this delicious fruit have been of unprecedented interest. The Hon. M. P. Wilder exhibited twelve varieties, nearly all of recent introduction; amongst these was the Belle Audgeoise, which will probably prove identical with the flesh colored Bigarreau. On the 17th July Messrs. Hovey & Co. produced the seedling cherry mentioned in the preceding report. This, notwithstanding the unfavorable season, fully maintained the high character then conceded to it. June 26th, Azell Bowditch exhibited in perfect maturity Coe's Transparent cherry; its great beauty, early maturity and abundant productiveness must render it a great acquisition to this department of fruit. Two of the seed-

King cherries exhibited by Mr. Welsh, fully maintained the reputation awarded them in former reports.

On the 17th July, J. P. Cushing, Esq., contributed melons of several varieties, including the Persian green flesh, which were of superior flavor. Messrs. Hovey & Co. presented for the first time the Hunter melon, which promises an acquisition in this department.

On the 17th July, Mrs. F. B. Durfee exhibited a fine bunch of Victoria grapes, weighing two pounds three ounces, and one of Black Hamburg, weighing two pounds six ounces, both in perfection of maturity.

The contributions of grapes from Mr. Allen's houses have been as liberal as in former years; in fact there has hardly been a week in which he has failed to grace the tables of the Society; his contributions of new varieties and seedlings have been dealt out with no stinted hand, when the Committee desired to test the quality. In fact, there has been favors of this kind at the hands of all contributors of fruits, to the view of disseminating knowledge in this department.

The Committee herewith append a note from Mr. Allen, believing it contains information which may prove valuable to the growers of grapes:—

Gentlemen,—I present for your examination the list of grapes, as per memorandum at foot. They were cut this day from vines in my retarding house. It will show you the result of my experiments for the last ten years, to ascertain the kinds of grapes suitable for winter eating, and such as are proper for a retarding house.

J. FISK ALLEN.

December 24, 1852.

"This list contains the kinds which are as fresh as possible:—Prince Albert, Queen of Nice, Syrian, Porteau Noir, Black Portugal, Whortley Hall Seedling, Muscat of Alexandria.

Black Hamburg and Wilmot's New Black Hamburg and Victoria Hamburg, dry up some.

These kinds dry up badly:—All the Frontignans dry badly, Black, White and Grizzly.

Black St. Peters is uncertain; some years it keeps well; other years it dries. Zinfindal dries badly."

Mr. J. S. Amory exhibited some beautiful specimens of gooseberries, with the following note, containing the valuable information which has alone been wanting to encourage an extension of the cultivation of this delicious and refreshing berry:—

"Gentlemen,—Having failed entirely in the cultivation of gooseberries, I had abandoned the attempt, when, having observed that some one at the South had succeeded, by paving under the bushes, I procured some new plants, which I set out in the middle of a row of paving about two feet wide; the result is entirely satisfactory."

So far as the experience of the past few years attest, the "Houghton Seedling" has been contributed in abundance by a few exhibitors, shewing no deterioration in quality, not being subject, alike with most other varieties, to the blight.

Aug. 7th, Mr. J. W. Foster contributed a seedling gooseberry of an extra

fine quality. There is hardly any fruit from seedlings, of which greater progress may be expected than this. The kinds introduced from England do not thrive here; indeed the fruit seems to be entirely changed, and to lose that agreeable flavor which makes it so much admired there. This difficulty can be only remedied thoroughly by raising new varieties from seed matured here; the Committee beg to call the attention of members to this subject, as they do not doubt, that as much interest will in a few years be excited here by exhibitors of gooseberries as in any other region of the horticultural world.

Mr. Galen Merriam exhibited very fine specimens of the improved high bush blackberry, under successful cultivation. This fruit, so grateful and so wholesome for children, during the season of summer complaints, when produced in the perfection exhibited by the cultivation of this gentleman, readily commands \$1 the box, while raspberries, requiring probably more care, fetch only one quarter of this price. This is partly owing, no doubt, to the extent of growth of the latter, but, if methods could be discovered by which this blackberry can be made to yield in profusion, it would be a most valuable addition to our catalogue of common fruits. And, with a view to disseminating a knowledge of the origin and culture of the "Improved High Blackberry," your Committee would call the attention of the public to an article in the "Magazine of Horticulture," Vol. XVI, page 261. The communication is from the pen of the Hon. Josiah Lovett, one of our Committee, and was written to the view of inducing the cultivation of a fruit, in which he has been so eminently successful.

Mr. Tudor, of Nahant, placed on the tables of the Society, Saturday, October 1st, upwards of twenty varieties of pears, of great perfection and beauty, grown under the influence of a new method of irrigation practised by him.

The exhibition of pears, throughout the whole season, has never yet been approached, either in respect to number, beauty, or quality. Messrs. Hovey & Co. exhibited fourteen new varieties of pears, of which they have handed in the following descriptions:—

1. *Beurré Sterkman*. A good sized fruit, with somewhat the appearance of the *Brown Buerre*; skin handsomely russeted; stem medium length; flesh, buttery, melting, juicy, high flavored and delicious. October and November.

2. *Belle Julié*. Size, medium; form, ovate; skin, greenish, much russeted; flesh, melting, juicy, subacid, and excellent. October.

3. *Bergamot Leseble*. Size, medium, roundish, somewhat flattened; skin, yellow, shaded with red; flesh, very melting, juicy, sugary, perfumed and excellent. September.

4. *Grand Soliel*. Size, medium; form, roundish, with a pale cinnamon russet skin; flesh, melting, very juicy, rich, sugary, and delicious. November.

5. *Adams*. Size, medium; form, pyramidal; skin, yellow, beautifully colored with red; flesh, melting, buttery, juicy, vinous, high flavored and delicious. September and October.

6. Doyenné Defais. Size, medium; form, roundish; skin, yellow; flesh, fine, buttery, melting, juicy, sprightly and fine. November.

7. Poire d'Albret. Size, medium; form, pyramidal, contracted on one side; skin, dark cinnamon russet; flesh, melting, juicy, with the rich subacid of the Brown Buerre. October.

8. Moore's Pound. Size, large; form, obovate; skin, deep yellow, tinged with red; flesh, melting, buttery, juicy, rich and delicious. October.

9. Calebasse d'Ete. Size, large; form, pyramidal; skin, greenish yellow; flesh, fine, buttery, melting, juicy, rich, high flavored and fine. September.

10. Sheldon. Size, large; form, roundish obovate; skin, green, tinged with red; flesh, buttery, melting, sugary, finely aromatized and delicious. October.

11. Canandaigua. Size, medium; form, pyramidal; skin, deep yellow; flesh, buttery, melting, juicy and excellent. September.

12. Zepherine Gregoire. Size, medium; form, roundish obovate; skin, green; flesh, fine, buttery, melting, juicy, exquisitely flavored. December.

13. Beurré Merod. Size, medium; form, oblong obovate; skin, yellow; flesh, melting, juicy, high flavored and excellent. October.

14. Poire des Chasseurs. Size, medium; form, pyramidal; skin, green; flesh, melting, juicy and good. November.

Other new ones are Calebasse d'Hiver, Marshall de la Cœur, Suzette de Bayay, Retour Van Mons, Inominee Patrie, &c., &c.

This list may well be called a valuable addition to our Catalogue, and evinces the untiring zeal of the gentlemen in their avocation. It is to be regretted that other exhibitors of fruits of recent introduction have not complied with the regulations of the Committee, by sending in also a description.

Mr. D. T. Curtis exhibited at the Annual Exhibition a new pear, on which scarcely too high an encomium can be passed, if it proves stable in its character. It is called Beurré Clairgleau. Two specimens of this pear were also sent by Mr. Jonathan Fowler, of Salisbury, with the following notice: "I send two pears which grew on a small tree *two years* from the bud, a new variety, called Beurré Clairgleau, described in the French Catalogues thus: Vigorous tree, very productive, fruit very large, buttery, melting and juicy, ripens in October and November, yellow brownish skin, first rate."

The exhibitions of Strawberries and Raspberries were much inferior to the contributions of former years, in part or entirely owing to the season.

Few or no new apples worthy of particular mention have been exhibited. The contributions of apples have been somewhat in excess of former years, though the beauty of the specimens have not equalled former contributions, which may be attributed, in most instances, to an excess in bearing.

The Committee would here acknowledge their obligations to the Adrian, Michigan, Horticultural Society, for a fine collection of apples; several varieties were of superior quality, and entirely new to your Committee.

ANNUAL EXHIBITION OF THE SOCIETY FOR 1852, which, by the kind

permission of Messrs. Hovey & Co., was held in the PUBLIC GARDEN, under a spacious tent erected for the purpose, was by far the most extensive in fruits ever yet presented to the public; and, although the number of contributors was not large, yet the amount of choice fruit far exceeded any former annual exhibition, forming the most attractive and really surprising feature of the display.

Delegations from the Horticultural Societies of several far distant states were present, with many individuals, both of this country and from Europe, who, from their high position in society were well qualified to give opinion of weight, and never was a horticultural exhibition in Boston examined by so numerous or so truly respectable a concourse of visitors as that of 1852; never were more just or satisfactory expressions of interest and delight evinced, never a more true assertion universally made, than that it exceeded in numbers and varieties of fruit, as well as in beauty and perfection, every former exhibition of the kind yet witnessed by them in any part of the world. Of course it is impossible to mention in sufficient terms of commendation all those whose united efforts produced this admirable display, yet it would be unjust to pass them over in entire silence.

Mr. Cabot, the President of the Society, 102 varieties of pears; Robert Manning, 167 var. of pears; Samuel Walker, 137 var. of pears; M. P. Wilder, 260 var. of pears; Hovey & Co., 250 var. of pears; B. V. French, 160 var. of pears, and 180 var. of apples; Winship, 90 var. of pears, and 40 var. of apples. Grapes, in variety, from J. Fisk Allen, W. C. Strong, Mrs. F. B. Durfee, Charles Sampson, Azell Bowditch, J. Pritchard, and Joseph Breck & Son. And choice dishes of pears, apples, &c., from Josiah Lovett, Josiah Stickney, J. A. Kenrick, W. R. Austin, S. Downer, Jr., Henry Vandine, Eben Wight, E. M. Richards, Josiah Richardson, John Gordon, N. Stetson, A. H. Ernst, C. G. Grant, Hyde & Son, A. W. Stetson, G. B. Cordwell, Jonathan French, Cheever Newhall, A. D. Weld, Wm. Bacon, W. B. Kingsbury, F. Burr, and Levi Brigham.

With these remarks your Committee submit their award of prizes offered by the Society the past year:—

For the best and most interesting exhibition of Fruits during the season, to J. F. Allen, the Lowell Plate, valued at . . .	\$20 00
For the second best, to Messrs. Hovey & Co., . . .	12 00
APPLES. —For the best twelve summer, on or before the last Saturday in August, to Otis Johnson, for the Early Bough, . . .	
For the next best to M. H. Simpson, for the Red Astrachan, . . .	4 00
Bronze Medal to F. Burr, for Early Harvest.	
For the best Autumn, on or before the last Saturday in November, to J. B. Moore, for Hubbardston, . . .	6 00
For the next best, to Bowen Harrington, for Porter, . . .	4 00
For the best Winter, on or before the third Saturday in December, to Josiah Lovett, for Cogswell, . . .	6 00
For the next best, to J. B. Moore, for Baldwin, . . .	4 00
APRICOTS. —For the best, to Ezra Cleaves, . . .	5 00

For the next best, to S. Downer, Jr.,	\$3 00
Gratuity to Geo. Measury, for a seedling,	3 00
BLACKBERRIES. —For the best, to Galen Merriam,	5 00
For the second best, to C. E. Grant,	3 00
CHERRIES. —For the best, to M. H. Simpson, for Black Tartarian,	5 00
For the second best, to John Greenleaf, for Black Tartarian,	3 00
For the third best, to Geo. Walch, seedling,	2 00
CURRENTS. —For the best, to Josiah Lovett, for Gondouin,	5 00
For the second best, to Geo. Wilson, for White Dutch,	3 00
FIGS. —For the best, to J. F. Allen,	5 00
For the next best, to Hovey & Co.,	3 00
GOOSEBERRIES. —For the best, to J. W. Foster,	4 00
For the next best, to J. S. Amory,	2 00
GRAPES. —For the best specimens, grown under glass, previous to	
July, to Mrs. Durfee, for Black Hamburg and Victoria,	10 00
For the next best, to J. F. Allen, for various,	7 00
For the best specimens, raised under glass, subsequently to first	
of July, to W. C. Strong,	10 00
For the next best, to J. F. Allen,	7 00
ISABELLA GRAPES. —For the best specimens, to C. E. Grant,	5 00
For the next best, to Kendall Bailey,	3 00
DIANA GRAPES. —For the best specimens, to Diana Crehore,	5 00
For the next best, to E. C. Hitchinga,	3 00
MUSK MELONS. —For the best, to J. Stickney, for Christians,	5 00
For the next best, to Hovey & Co., for Hunter,	3 00
Gratuity to A. D. Webber, for various sorts,	3 00
NECTARINES. —For the best, to J. F. Allen,	5 00
For the next best, to W. C. Strong,	3 00
PEACHES. —For the best specimens, raised under glass, previous to	
July, to J. F. Allen, for Grosse Mignonne,	6 00
For the next best, to Hovey & Co., for Clinton,	4 00
For the best specimens, in open culture, to J. F. Allen, for	
Grosse Mignonne,	6 00
For the second best, to Hovey & Co., various,	4 00
For the third best, to M. H. Simpson, for Titon de Venus,	2 00
PEARS. —For the best collection, not exhibited before, this year, with	
a written description of the same, to Hovey & Co., the So-	
ciet's plate, valued at	10 00
For the best Summer Pears, to W. R. Austin, for Summer	
Franc Real,	6 00
For the next best, to S. Downer, Jr., for Bloodgood,	4 00
Gratuity to Josiah Lovett, for Rostiezer,	4 00
For the best Autumn Pears, to J. Stickney, for Urbaniste,	6 00
For the next best, to J. H. Stetson, for Beurré d'Anjou,	4 00
Gratuity of \$4 each, to J. Sleeper, for Buffum; to J. Dane, for	
Van Mons Leon le Clerc; to H. Vandine, for Marie Louise.	
For the best Winter Pears, to H. Vandine, for Glout Morcean,	8 00

For the second best, to J. Gordon, for Easter Beurré,	. . . \$6 00
For the third best, to J. Lovett, for Passe Colmar,	. . . 4 00
Gratuity of \$4 each, to Hovey & Co., for Beurré Langelier; to B. H. Dewing, for Winter Nelis.	
Gratuity of the Bronze Medal, to A. Cushing, for Passe Colmar; and J. Fowle, for Easter Beurré.	
PLUMS. —For the best specimens, to Hovey & Co., for Washington,	4 00
For the second best, to G. Wilson, for Green Gage,	3 00
For the third best, to E. Cleaves, for Coe's Golden Drop,	2 00
QUINCES. —For the best, to C. E. Grant,	4 00
For the next best, to W. Bloodgood,	2 00
RASPBERRIES. —For the best specimens, to J. Lovett, for Knevitt's Giant,	5 00
For the second best, to A. Bowditch, for Knevitt's Giant,	3 00
For the third best, to K. Bailey, for Franconia,	2 00
STRAWBERRIES. —For the best specimens, to J. B. Moore, for Hovey's Seedling,	6 00
For the second best, to J. Richardson, for Hovey's Seedling,	4 00
For the third best, to O. Johnson, for Hovey's Seedling,	3 00

PRIZES AWARDED ON THE FIRST DAY OF THE ANNUAL EXHIBITION.

PEARS. —For the largest collection, consisting of the greatest number of varieties, at least three specimens of each variety,—the collection to be left on the table of the Society, under the care and control of the Chairman of the Fruit Committee, for two weeks,—to M. P. Wilder, the Appleton Medal, valued at	30 00
For the largest and best grown collection, subject to the same rules and conditions, to Hovey & Co.,	30 00
APPLES. —For the best and largest collection, of the greatest number of varieties, and best grown, at least three specimens of each variety,—the collection to be left on the tables of the Society, under the care and control of the Chairman of the Fruit Committee, for two weeks,—to B. V. French, the Appleton Medal, valued at	40 00
For the second best, subject to the same rules and conditions, to A. D. Williams & Son,	20 00
For the best twelve varieties, of twelve specimens, to Josiah Lovett, the Society's Plate, valued at	20 00
For the second best, to J. Eustis,	15 00
For the third best, to J. Gordon,	12 00
For the fourth best, to J. B. Moore,	8 00
For the best dish of twelve specimens, to Hovey & Co., for Porter,	6 00
For the second best, to J. Stickney, for Melon,	5 00
For the third best, to M. H. Simpson, for Porter,	4 00
For the fourth best, to Levi Brigham, for Nonpareil,	3 00

PEARS. —For the best twelve varieties, of twelve specimens each, to	
W. R. Austin, Lyman Plata, valued at	\$20 00
For the second best, to J. Stickney,	15 00
For the third best, to S. Downer Jr.,	12 00
For the fourth best, to Hovey & Co.,	8 00
For the best dish of twelve specimens, to S. Downer, Jr., for	
Louise Bonne de Jersey,	6 00
For the second best, to J. Richardson, for Flemish Beauty,	5 00
For the third best, to Geo. B. Cordwell, for White Doyenné,	4 00
For the fourth best, to Ezra Cleaves, for Marie Louise,	3 00
ASSORTED FRUITS. —For the best basket of fruit, of various kinds,	
to Otis Johnson,	10 00
For the second best, to J. F. Allen,	7 00
GRAPES. —For the best specimens, to Mrs. Durfee,	
For the second best, to W. C. Strong,	8 00
For the third best, to J. F. Allen,	6 00
For the fourth best, to J. Breck,	5 00
For the fifth best, to H. Hazeltine,	4 00
For the sixth best, to Chas. Sampson,	2 00
PEACHES. —For the best specimens, to C. L. Tarbell,	
For the second best, to J. A. Kenrick,	3 00
GRATUITIES. —To A. D. Williams & Son, Josiah Richardson, John	
Gordon, Samuel Walker, A. A. Andrews, J. S. Cabot, Josiah	
Lovett, R. Manning, and O. Johnson, for collections of pears,	
a gratuity of \$7 each.	
To William Bacon, J. S. Sleeper, A. Bowditch, H. Vandine,	
W. B. Kingsbury, W. P. Tenney, and Jonathan French, for	
collections of pears, a gratuity of \$5 each.	
The Bronze Medal to Bowen Harrington, Cheever Newhall, F.	
Burr, and E. Tufts, for apples.	
To W. C. Strong, for basket of fruit,	7 00
To A. Bowditch, for the same,	7 00
To Joseph Breck, for a design for grapes,	3 00
To George Watson, for plums,	3 00
To H. Vandine, for plums,	3 00

For the Committee, **EBEN WIGHT, Chairman.**

REPORT OF THE COMMITTEE ON VEGETABLES,

FOR THE YEAR 1852.

The Committee, in submitting the accompanying report, must say that, at the weekly exhibitions, the variety of vegetables was not as great as wished for; at the Annual Exhibition it exceeded that of 1851 by a large increase.

In regard to the Davis Seedling Potatoe, left to this Committee for trial, it has fully met the expectations of the Committee.

The Old Colony Sweet Corn, raised by A. R. Pope, of Somerville, we recommend as worthy of culture by all.

No new vegetable having been produced during the past season, the Committee have seen best to divide the premiums and distribute in gratuities.

ASPARAGUS. —For the earliest and best, not less than three bunches,	
to J. Stickney, (14 stalks, 19½ oz.)	\$3 00
For the second best, to J. Mann, (3 bunches, 4 years from seed,	
24 stalks, 1 lb. 11½ oz.)	2 00
BEETS. —For the best (pure blood beet) during the season, not less	
than twelve roots, to J. Crosby,	3 00
BROCCOLI. —For the best three heads, to J. Lovett, 2d,	5 00
BEANS. —For the best and earliest peck of string beans, to J. Nugent,	3 00
For the best and earliest Lima beans, not less than two quarts,	
to A. Bowditch,	3 00
For the best and earliest shell beans, to J. Crosby,	3 00
CABBAGE. —For the best Drumhead cabbage, during the season, not	
less than three heads, to J. B. Moore,	5 00
CARROTS. —For the best exhibited during the season, to J. B. Moore,	2 00
CAULIFLOWERS. —For the best and largest during the season, not	
less than three heads, to J. Lovett, 2d,	5 00
CELERY. —For the best and largest blanched, not less than six roots,	
to Messrs. Hyde & Son,	5 00
For the second best, to B. Harrington,	3 00
CORN. —For the earliest and best sweet corn, not less than twelve	
ears, to J. B. Moore,	3 00
For the second best, to J. Crosby,	2 00
CUCUMBERS. —For the best pair under glass, previous to the first	
Saturday in June, to W. F. Walsh, (gardener to J. French,)	
for his Walkes Rambler,	5 00
For the second best, to W. F. Walsh, (gardener to J. French,)	
for his Godfrey & Snow,	3 00
For the best and earliest of open culture, to J. Crosby,	3 00
Egg PLANTS. —For the best display during the season, to Wm. F.	
Walsh, (gardener to J. French,)	5 00
LETTUCE. —For the best six heads, before the first Saturday in July,	
to J. Stickney,	3 00
For the second best, to J. Crosby,	2 00
POTATOES. —For the best and earliest peck, previous to August 1st,	
to W. A. Harris,	3 00
For the second best, to J. Crosby,	2 00
PEAS. —For the best and earliest peck, in June, to J. Stickney,	3 00
RHUBARB. —For the largest and best, previous to the first Saturday	
in July, not less than twelve stalks, to A. W. Stetson,	5 00
For the second best, to J. Lovett, 2d,	3 00
TOMATOES. —For the earliest and best, not less than one dozen, to	
J. Nugent,	3 00
For the best display and largest variety at the weekly exhibi-	
tions during the season, to J. Crosby,	5 00
For the second best, to J. B. Moore,	3 00

PREMIUMS AND GRATUITIES AWARDED AT THE ANNUAL EXHIBITION.

VEGETABLES.—For the best display and greatest variety, to Hon.

Daniel Webster, Marshfield,	\$10 00
For the second best, to J. B. Moore,	8 00
For the third best, to A. D. Williams,	6 00
For the fourth best, to Josiah Crosby,	4 00
For Mammoth squashes, largest and best, to Sydney B. Morse, Society's Silver Medal.	

For the second best, to Hon. Daniel Webster,	3 00
For pumpkins, largest and best, to B. V. French, Society's Silver Medal.	

For the second best, to John Gordon,	3 00
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GRATUITIES.—To Mrs. S. W. Cole, for fine squashes,	5 00
For very fine collection of potatoes,	5 00
To A. D. Weld, for fine seedling potatoes,	3 00
To B. Harrington, for fine potatoes,	3 00
To Stone & Co., for collection of vegetables,	3 00
To J. Gordon, for fine collection of squashes and vegetables,	3 00
To J. B. Hathaway, for fine collection of vegetables,	5 00
To J. Hyde & Son, for fine potatoes and other vegetables,	5 00
To B. V. French, for egg plants and large collection of vegetables,	5 00
To Messrs. Burr, for superior sweet corn,	5 00
To A. McLennan, for very fine egg plants,	6 00
To J. Stickney, for superior cauliflowers,	3 00
For collection of vegetables,	5 00
To J. Mann, for collection of vegetables,	5 00
To Hovey & Co., for variety of tomatoes,	3 00
To P. Barnes, for White Egg plant and corn,	2 00
To A. R. Pope, for Old Colony Sweet corn,	2 00
To Hon. Daniel Webster, for celery and beets,	3 00
To S. B. Morse, for variety of squashes and pumpkins,	3 00
To E. M. Richards, for variety of squashes,	2 00
To N. Stetson, for very fine tomatoes,	2 00
To Chas. Stone, for very fine Black Spanish melons,	6 00
To A. Bowditch, for Lima beans,	2 00
To John Hill, for large bulky melons,	1 00
To A. W. Stetson, for squashes,	2 00
To A. D. Williams, for squashes,	2 00
To Mrs. Page, for Snake cucumber and new var. of melons,	3 00

GRATUITIES AT THE WEEKLY EXHIBITIONS.

To P. Barnes, for broccoli,	2 00
To W. McClennan, for asparagus, shown January 31st, 1852,	3 00
To W. F. Walsh, for Godfrey cucumber, grown in pot,	3 00
To A. Wales, for cucumbers,	2 00
To F. Tudor, for pumpkins and squashes,	5 00

To J. S. Amory, for okra,	\$3 00
To Mrs. Cole, for Seedling potatoes, Nos. 14, 15 and 23, as recommended by Committee of 1851,	4 00
For the Committee, HENRY BRADLEE, <i>Chairman</i> .	

HORTICULTURAL OPERATIONS

FOR JANUARY.

FRUIT DEPARTMENT.

THE month of December has been unusually mild, admitting of the completion of all fall work, and forwarding much that is ordinarily delayed till spring. With the exception of two or three days, it has been mere like April than December. The frost is now (26th) quite out of the ground. How long it will continue thus is uncertain; but as two cold winters rarely follow each other, we predict open and mild weather. The sun is now advancing towards us; the days are longer, and the nights shorter; and as very light fires have been required to keep up the temperature of the houses, forcing may be begun earlier and with greater success than usual.

GRAPE VINES in the earliest houses will now be about breaking their eyes. The temperature should not be raised too rapidly, as this would injure their future well doing. Syringe freely till the flower-buds are conspicuous. Later houses will not require any attention till next month, other than to have the vines washed and put in order, if not already done. Grafting may be done now, where it is desirable to introduce better kinds in the place of poor ones.

PEACHES in pots should be placed in a cool cellar, or under some temporary shelter, where the temperature will not be likely to injure the buds. A cold vinery is a good place. They may be introduced into the greenhouse or forcing house the first of February. Prune, wash, and put in good order beforehand.

FIS should be pruned, washed, and put in order for an early growth.

SCIIONS of fruit trees may now be cut; preserving them in a cool place by inserting their lower ends in earth, sand or moss.

CUTTINGS of currants, gooseberries, quinces, &c., may now be made, and preserved for spring planting in the same way as scions. It saves a deal of valuable time in March or April.

FLOWER DEPARTMENT.

The mild weather thus far has been favorable to the health, growth and condition of all in-door plants. No strong fires having been required, they may now, with a brighter sun, be allowed more heat, and brought on more rapidly than last month.

January is the time to bring on plants for the spring campaign. Let every preparation be made now; it will save hurry in March and April.

Put everything in the houses in the neatest order: wash and clean all large-leaved plants, as camellias, oranges, &c., and tie up neatly all crooked and ill-shaped specimens, pruning them into shape. Don't be afraid of the knife; it is a bugbear which destroys the beauty of one half of our window plants. Look out for insects, and do not let them get the start of you; it will be difficult to eradicate them if you do.

PELARGONIUMS will now begin to move off with a rapid growth; tie out all the branches carefully, if fine specimens are desired; shift at once into the flowering pots, and stop all over-vigorous shoots, except on such as are wanted for blooming early. Keep near the glass, in a very airy place, and do not over water, though they will require larger supplies than last month.

CINERARIAS will now show signs of advancing their flower stems; repot immediately if the roots are pot-bound; tie out the shoots, and water occasionally with weak liquid manure.

CAMELIAS will now be in full bloom. Water liberally, syringe freely, and shade as soon as the sun gets high enough to burn the leaves. Put in cuttings now; and begin to inarch the last of this month. Sow seeds if not already in.

ACHIMENES and GLOXINIAS should now be potted and started into growth, placing them in the very warmest part of the house.

AZALEAS will now begin to grow, and will need more water.

OXALISES, done blooming, should be set away, and their place supplied with spring flowering bulbs.

JAPAN LILIES may now be repotted and brought into the house, if room; if not, they may be placed in a frame, and covered with leaves or tan to the depth of six inches, to keep out frost.

PANSIES should now be shifted into the pots they are intended to bloom in. Look out for the green fly.

CALCEOLARIAS should now have a shift into larger pots.

VERBENAS, for early blooming, may now have a change into larger pots.

STEPHANOTUSES should now be headed in, repotted, and forwarded in the warmest part of the house.

MONTHLY CARNATIONS should be repotted as soon as the roots become crowded.

HEATHS should be looked after attentively. Water cautiously, keep in a very cool place, and repot before the roots become matted together.

FUCHSIAS, for early blooming, should now be shaken out of the old pots and put into new ones, reducing the ball of earth and pruning in the branches.

CUTTINGS should now be put in of all such plants as are wanted for bedding out in summer, viz.,—scarlet geraniums, salvias, heliotropes, verbenas, cupheas, petunias, lantanas, &c., &c.

SOW SEEDS NOW of *Cobæa scandens*, verbenas, ten-week stocks, pansies, &c., &c.

Attend to the condition of all kinds of plants; pick off all dead and decayed leaves, turn round the plants on the stage once a fortnight, and keep the temperature 40 to 45° at night, and 65 to 70° during the day.

THE MAGAZINE OF HORTICULTURE.

FEBRUARY, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *Popular Errors respecting the growth of Trees in mild weather during Winter.* By the EDITOR.

THE exceedingly mild and pleasant weather of December and the early part of January, with an average higher temperature than is often experienced at that season, has given rise to repeated inquiries regarding its injurious effects upon vegetation. Every unusually warm or prolonged autumn, which in our variable climate recur every two or three years, the same inquiries have been repeated, till at last we have thought we might, at least, contribute something to dissipate such a popular error, and prevent similar queries, if we could not clearly show that there was scarcely a possibility of any injury arising from the return of such seasons.

"What remarkably mild weather for December," says one. "Don't you think it will start all the fruit buds? My peaches appear swollen already."

"Unusually warm for this season of the year," says another. "I gathered quite a bouquet of pansies in a warm border in my garden, and the honeysuckles have all put out into leaf. Wont it destroy the fruit buds for next season?"

"How very mild for the first week in January, remarks a third. "I find the lilacs in my garden have already swollen their buds. Don't you fear that the cold weather, which we must soon have, will greatly injure all kinds of trees and destroy the fruit buds?"

These, and similar questions, were put to us every day during the continuance of the mild weather in the latter part of December and early part of January. Every newspaper chronicled some remarkable story in regard to the season. In Mr. A's garden, a bouquet of violets was gathered; in Mr. B's, a newly expanded rose was picked; in that of Mr. C, a full blown dandelion was cut; and in that of Mr. D, a "petit head of lettuce, which had sprung up from seed, was culled," and placed upon the editor's table as a proof of the unusual weather. Such statements, accompanied with the popular notion that plants *must* grow in such weather, because they do when not so warm in spring, only serves to keep up the error, and augment the fears, that the fruit crop is in imminent danger of entire destruction.

That some plants are found in bloom during the continuance of such weather, and that there is some foundation for such newspaper paragraphs as we have just noticed, is certainly true; but the cause is so well known to all who have given any attention to the subject, that, though occurring almost every year, they attract no attention or notice. Certain plants, under certain conditions, may scarcely be said to be wholly at rest, and among them are the kinds which have served for notices like the above. Pansies, which spring up from seeds late in summer, are just ready to bloom on the approach of winter, and if accidentally covered with snow when there is no frost in the ground, or if slightly covered with leaves, will, upon the first warm day when the snow leaves them, or the covering is removed, immediately open their buds, which have been formed for weeks, and only await a favorable opportunity to expand. So too with the Bourbon and Noisette roses, which, in a warm climate, scarcely stop growing the year round. Buds are constantly formed on the terminal shoots; these, from their straggling habit, being often covered with foliage or dry leaves, or even lying upon the ground, expand after a day or two of warm weather. We have a Glorie des Rosamene rose, on the south side of our house, in a sheltered situation, which was in flower with the snow falling. The honeysuckle continues to grow till

checked by frost; and its lateral branches will continue to open a leaf or two after a few warm days of such weather as we had in December or January.

But this is quite a different thing from the bursting of the buds which have been formed for the succeeding year. These are not so easily started into growth. A week, a fortnight, or even a month of warm weather in December, would have little or no effect upon them. It is their season of rest; and warm or cold, dry or wet, it requires a vast amount of heat to produce the least perceptible swelling of the buds. Cultivators who have had plants to manage in greenhouses, will at once state how difficult it is to force plants into growth in winter.

Take as an example the lilac, which is one of the most easily excited,—and which, by the way, we never saw swollen in the least, though we have hundreds, and have closely examined them. On the first of December we potted four plants, and immediately placed them in a shed for a week, close by the furnace; they were then removed to the stove or hot-house, (not greenhouse,) where the temperature was from 50 to 60° at night, and from 65 to 90° during the day; they were kept constantly watered and syringed, yet they showed no signs of swelling till the 1st of January, just four weeks from the time of potting.

Take another plant, the few double Japan Spiræa. In October, after the first white frost, nearly all the plants in a row, a hundred feet long, expanded more or less of their beautiful snowy blossoms. This was undoubtedly owing to the dry summer, which brought on a premature rest; but the heavy rains of September started them into growth and bloom. On the 1st of November, several of them were taken up and potted. After standing in a shady place in the open air for a fortnight, they were taken into the stove. Here, with constant syringing, and in the same temperature as the lilacs, they did not open their buds till January, eight weeks after they were potted!

Cultivators who grow grapes in greenhouses will testify to the difficulty in attempting to force the vines into leaf before

their time,—that is, before they have undergone their period of rest, which is from two to four months, according to treatment. In the month of March, with the temperature at 40° at night, they will break rapidly; while a continued temperature of 50 to 60° at night, all the month of December, will have no perceptible effect whatever.

Such cases we think sufficient to show that there is not the least danger of the swelling of the *ripened buds* of trees or plants, by even the warmest weather which we are ever likely to have in the early part of winter. The sap has, at that season, undergone the change which prepares it for winter, and it can be excited to action only by an extraordinary amount of heat and moisture. The effect of similar weather in March, however, is quite another thing; then there is no doubt of the injury which might be produced. The natural season of vegetation is then approaching, and a slight augmentation of heat immediately increases the activity of the sap.

We were just on the point of preparing this paper when our last foreign journals came to hand. Almost the first article we noticed was an abstract of a communication by Professor Heer, of Zurich, on the Vegetation of Madeira, translated from a Geneva paper. It completely and fully sustains all we have written, and shows conclusively that there is not the slightest foundation for the popular error that the warm weather of winter will excite vegetation. We copy the article entire:—

M. Heer, of Zurich, so well known by his observations on the botanical geography of the Swiss mountains, having been compelled by the state of his health to make some stay at Madeira, has employed his time whilst there in studying, in various points of view, the vegetation of that island,—the climate of which is remarkably equable throughout the year.

Since his return, he has laid before the Société Helvétique des Sciences Naturelles several interesting observations relative to the periodical phenomena of vegetation. After remarking that all the woody plants of Madeira are evergreen

trees or shrubs, blossoming very often during the cool season, he observes how much the species introduced from more northern countries contrast with these indigenous species in their mode of vegetation.

The oak and the beech, for instance, continue to lose their leaves during the winter, although the weather is then milder than it is in several parts of Europe during the summer. Thus, at Funchal, the leaves of oaks (*Quercus pedunculata*) planted in some public gardens and promenades began to grow yellow at the end of October, and gradually became dried up to the 1st of January. Some isolated trees began to shoot by the 10th of January, and were green again on the 6th of February; but all the others remained in a state of repose, and were not generally covered with new leaves until the 20th of February. In Mr. Gordon's garden, at an elevation of 1800 feet, they were a month later.

The leaves of the beech became yellow at Funchal by the 8th of November; at Mr. Gordon's garden by the 28th of October. The leaves, or at least the greater part of them, remained in a dry state upon the trees until they began to shoot in the spring, which was about the 1st of April. At Funchal, the terminal buds were open by the 8th of April, and the lateral a little later.

At Glaris, the period of repose of the beech, on an average, is 194 days; in Madeira, where the cold season is like the summer at Glaris, it is 149 days. The difference is only 45 days. The oak in Switzerland has a period of repose nearly equal to that of the beech, whilst at Madeira it is only 110 days, or 49 days less than the beech. M. Heer supposes this difference may arise from the beeches of Madeira having been introduced from England, and the oaks from Portugal, so that the latter would have previously acquired the habit of losing their leaves later, and vegetating sooner, than in the centre of Europe.

M. Heer ought perhaps to have added, what he no doubt knows, that sudden variations of temperature in 24 hours, especially the instantaneous diminution to 32° Fahr., or lower, are one of the great causes of the fall of leaves in

Switzerland. The absence of these variations retards the phenomenon in the west of Europe, and still more in Madeira.

In the facts stated by M. Heer,—facts of which we previously had examples in the hothouse culture of tropical plants,—there is a proof of that important physiological law, too often forgotten by meteorologists, that the same temperature or the same sum of temperatures, combined with the season, does not always produce the same effect upon organized beings.

Every species is as it were a machine, which performs its functions under the influences of external causes, modified by particular internal conditions. These vary not only between one species and another, between one race of a species and another, and even up to a certain point between one individual and another, but also between one period and another,—the same heat, after the repose of vegetation, for instance, not producing the same effect as in other circumstances.

In Madeira, the *Platanus occidentalis*, a native of the United States, loses its leaves very slowly from the middle of October, or rather they gradually become yellow and fall afterwards from the action of the wind and rain. The repose is complete in January, February, and up to April, during a period of 87 days. The *Liriodendron tulipifera*, also a native of North America, has a complete repose of 151 days.

The apple and pear trees generally begin to lose their leaves in December. They come into flower at Funchal by the 7th of April, and their fruit is collected in August. There are, however, varieties of apple and pear trees which flower and produce fruit twice in the year, and one variety of apple is perpetually in flower and fruit. The peach trees about the 4th of November already exhibit some flowers amongst their leaves; they then, to the great astonishment of M. Heer, continued blossoming in abundance during the months of December and January, and the fruit came to maturity from the 23d of February to the end of summer. In February there were flowers on the upper parts of the trees, and fruit below; and it was also then the leaves were

renewed, the interval between the falling and shooting of the leaves being scarcely sensible.

The vines around Funchal began to lose their leaves about the 24th of October. The soil of the vineyards in winter offered the singular appearance of being covered with the flowers of *Oxalis speciosa* (a Cape plant) and of *Calendula arvensis*. New leaves appeared by the end of March, and by the 8th of April the vines were completely in leaf, with young floral Grapes. The flowers open at the end of April and the beginning of May, and the vintage takes place in September. The repose lasts 157 days.

It is unnecessary for us to say anything in regard to the climate of Madeira,—so well known to every reader,—situated as it is within 10 degrees of the tropics, where, as M. Heer states, “it is much milder in the winter than it is in several parts of Europe in summer.” Yet our common button-wood has a complete rest of 87 days! the beech, 149 days! and our tulip tree, 151 days!—over FIVE months, and nearly as long as in its native climate. The apple does not flower till the 7th of April, while it often flowers here the 7th of May.

If, then, under an almost tropical sun, trees cannot be started into growth under four or five months, need we have any fears of injurious effects from the warm winter weather in the latitude of 42 degrees?

M. Heer, in comparing every tree to a “machine which performs its functions under the influences of external causes, modified by particular internal conditions,” has elucidated the whole subject. All plants and trees require a certain amount of rest; and this they will have, modified only to a certain extent by the application of extraordinary heat and moisture.

With such evidence, in addition to what we have advanced ourselves, we hope we have succeeded in accomplishing what we promised in the beginning of our article, viz., to show that there was scarcely a possibility of any injury to trees, shrubs or plants, so far as their growth was affected, by the warmest weather we are ever likely to experience in December and January.

ART. II. *On Laying out and Planting Villa Residences.***By R. B. L.**

It has been acknowledged by all who are practically acquainted with landscape gardening, that it is much more difficult to attain the objects in view in small gardens than in large ones. This was acknowledged by the celebrated Repton, who essentially failed in many of his minor efforts to improve on what already existed, and who—like many of his modern imitators—illustrated the truth of the fact, that “alterations are not always improvements.” Any one who has studied the country and villa residences in Europe, and carefully noted in his mind the effects produced by the various methods of planting and laying out grounds, will have much more confidence of success in laying out and planting a place one hundred acres in extent than one of two or three acres. The difficulty in the case of small places arises from the multiplicity of requirements and results to be produced, without adequate means or extent to produce them in.

One grand mistake of the writers of books on modern landscape gardening is their method of illustration. Their logic smacks too much of Claude, Poussin, or Salvator Rosa, and their expensively illustrated volumes are, as far as real utility is concerned, little better than so many neat fancy pictures. They give you views of places in their unimproved state, and views of the same after they have been improved,—wood cuts of places as they are, and corresponding ones of the same places as the would-be Claudes and Poussins would make them. On one page we have, what the authors are pleased to term, Harmony and Unity; on another, Discordance and Incongruity, represented by a few random scratches, which mean neither one thing nor another.

By saying that we have not, among the multitudes of such wood cuts, seen one that will not bear absurdity stamped upon its face, we must not be understood to undervalue the fine arts, or the rules and principles which in landscape gar-

dening may be derived from the recognition of the works of the ancient and modern masters; yet we doubt whether the inimitable pictures of Rosa, Poussin or Claude were painted from scenes formed by art, or that any living landscape has been formed by art from the paintings of either of them. Every one acquainted with the execution of landscape operations from plans and sketches, whether isometrical or plain, knows how different, and often how disappointing is the result, from what was anticipated. The general arrangement of a place may be accurately given by drawings, and these may be both necessary and economical, but we have seen very few cases where the effect can be conveyed by mere views and sketches from different points of the grounds. In forming a suburban landscape, we must be guided by utility and convenience entirely; and in laying out ground of considerable extent, we may fully recognize the principles, as far as admissible, by which the artist disposes of the objects on his canvas; but to attempt the imitation, as some of our writers would insist, of this or that particular painter, with his peculiar *light* and *shade*, is simply absurd, and a combination of absurdities is always the result of the attempt.

The style of laying out grounds at present, or rather what is attempted by those who attempt any style at all, is called the *natural*, or English style,—which among landscape gardeners seems to be very vaguely understood. The general idea is an imitation of nature; and hence some persons have expended a great deal of money in first making a piece of scenery *unnatural*, and then trying to imitate nature so closely as to attempt producing a scene that might be mistaken for a piece of nature. Such landscape gardening is both puerile and conceited; and such fac-simile imitations, even though pretty in themselves, are, nevertheless, but paltry representations of nature, to which no one in this country need resort, as scenes sufficiently natural in themselves can be had in abundance, without spending money to make them.

Another point especially objectionable in the modern books on landscape gardening, is the infinitesimal refinements to

which they have attempted to reduce the principles of the art, while the real object, visible through all the specious pleading, is simply to compile a volume,—to make a book. In forming a piece of scenery, for instance, we must have it grave or gay, warm or cold, moving or stationary, hard or soft, rough or smooth. We must regulate the odors, too,—we must have them soft and fresh, as the smell of hay, lavender, roses, &c.,—or strong, as of pine or birch. We must produce a grateful mixture, too,—as in spring, with the open buds of the trees, and violets, primroses, hyacinths, &c. Again, we must have *Truth, Utility, Fitness, Proportion, Symmetry, Conformity, Unity, Uniformity, Order, Confusion, Contrast, Variety, Intricacy, Harmony, Light, Shade*, and we know not what else beside, within the compass of a few acres of ground, and for an outlay of a few hundred dollars. If practical landscape gardeners in the country must produce the expressions, and satisfy the fanciful conceits of plagiarian theorizers, with the means and materials generally at their command, they have truly a difficult task before them.

The application of the principle of the recognition of art, to the laying out of the numerous class of residences most generally abounding in this country, must, as this recognition is at present understood, be attended with universal failure, as there is probably not a dozen residences in the Union where the recognition of this principle can be applied with any hopes of success; and even there we want the rich and dark glossy masses of evergreen foliage, which so strikingly characterize the European landscapes; and this is a desideratum which the Conifers of this country, however majestic and beautiful, never can supply. We have not, in the whole sylvia of America, a plant that will take the place of the common Bay in forming the foreground of landscape scenes. We have comparatively few of the large foliated shrubs, which so soon after planting produce those striking effects of light and shade, of variety and intricacy, spoken of in the works of English landscape writers, and therefore their copied directions cannot be applicable, because their results cannot be produced.

In English landscape gardening, that principle which is common to all arts of design and taste is most generally carried out, and the style of the grounds is generally guided by the style of the buildings. To be guided here by such principles, "Shade of Evelyn," what a preposterous idea! America has not yet, we presume, produced the genius to strike out a style applicable to all, or indeed exclusively to any, of the innumerable oddities that are scattered over the face of the country. Whatever, either in a building or in a garden, cannot be justified by principles of some kind or other, must be undoubtedly wrong; and whatever cannot be referred to pre-established rules, must necessarily be new, and may either be right or wrong, according as they agree with principles by which they are judged. These fundamental principles, as far as we have yet discovered, are totally absent from all the artificial landscapes we have yet viewed in this country. And notwithstanding what has been published on the subject, not a syllable has been written that had not been long ago advanced in English works; nor can we discover anything in the writings of American authors on landscape gardening, calculated to adapt the works of European writers to the wants of the numerous residences where this adaption is so much required.

In small villa gardens, it is manifestly more difficult to adopt the natural or irregular style than the ancient or formal style. We think this remark especially true in regard to our numerous suburban residences in the vicinity of Boston, and on the Hudson, near New York. The reason why the geometric style was adopted so much in England in the sixteenth and seventeenth centuries, was because the country itself, in its whole extent, presented all the grandest features of the natural style, just as the field and forest portions of this country do now. But that country now being under cultivation, in right-lined fields and square enclosures, the portion, which to be rendered natural, must be so formed, at the pleasure of the proprietor, to make a contrast. In olden times, the gardens and pleasure grounds were geometric, and the rest of the country in its natural irregularity; now, the

case is reversed, the country is geometric, and the private grounds rendered naturally irregular. The change, therefore, may be said to be one of necessity, that the contrast might continue to administer to the pleasure of proprietors.

ERRATUM.—In my last article, page 19, an important typographical error escaped your notice. Instead of “An effect which is *now* produced by natural plantations,” read—An effect which is *never* produced by natural plantations.

Roxbury, Jan. 20th, 1853.

ART. III. *The Cultivation of the Grape Vine.* By WILLIAM GORE, Freeport, Me.

LAST autumn some very superb specimens of Isabella grapes were given to us by Mr. C. Whiting, of Boston, who received them from his relative Mr. W. Gore, of Freeport, Me., the gentleman who raised so large and fine a crop of Hovey's Seedling strawberry, noticed by us (XVIII, p. 450.) The specimens were so much superior to those usually seen,—indeed, superior to any we ever saw,—that we urged Mr. Whiting to send us Mr. Gore's method of cultivation, believing that if it contained nothing particularly new, it could not otherwise than prove interesting to many of our readers. Mr. W. kindly complied with our request, and the following is Mr. Gore's communication :—

BROTHER WHITING,—I was pleased to hear from you that my grapes compared favorably with others of the same kind under out-door culture ; but to give you an account of my vines and manner of treatment, from autumn to autumn again, I am sure would be tedious and commonplace ; for my treatment is not new, nor very different from what is called “regular.”

For a fair description, it would be well to know that the vine, on which those sample bunches were grown, has been planted in its present place six years, and trimmed the usual

way during the growing season, and "spur"-pruned in the fall. In the autumn of 1851, the vine had five canes (or branches) from fourteen to eighteen feet in length; but one being somewhat injured by mice the preceding winter, and the canes rather too near together on the trellis, I cut it off, leaving four canes, which, after covering the ground well with stable manure and boards, were loosened from the trellis, let down upon the boards, and covered with spruce limbs for the winter. [It will probably be recollected, that our correspondent, Mr. A. Johnston, Jr., in his excellent article on the vine, (XVI, p. 548,) states that the Isabella requires protection at Wiscasset, and probably in most parts of Maine. Ed.]

In the spring, the vines were uncovered as early as the season would admit,—early in April; but they were left down until the last of May, as they suffer less from the cold winds in that position than they would upon the trellis; besides, it is supposed the sap flows better through the canes, and, consequently, that the buds put forth more uniformly. After securing the vines upon the lattice,—which is twelve feet high and twenty-five feet long, at the south end of the house, and eighteen inches from it,—I commenced *weeding* it, leaving but one shoot or fruiting branch to each eye or joint, and these were secured from time to time, as they advanced, to the trellis. The flowers did not make their appearance till the 2d of June, and the middle of July, the fruit being formed, I took off all but two bunches from every strong shoot, and reduced others of weak growth still more. I have been in the habit, before last season, of shortening in the young fruit wood at the second leaf or joint above the fruit, but the present season I have let all grow excepting such as injured the symmetry of the vine, they growing from five to twelve feet before September, when they were all shortened in about one quarter of their growth.

The fruit was gathered the 20th of October, having been protected from the cold winds and frost one month by an awning of cotton cloth. I have pruned again this month, November, as usual, cutting all the fruit wood, or nearly all, to within one or two joints of the main canes, leaving the

canes prolonged from eight to twelve feet, and put the vines under cover as in the previous year.

I should mention that I water freely in the first of the summer, occasionally with soap suds, and syringe often, towards evening, with rainwater. The summer *pickings* or *weedings* are buried by the roots of the vine, with a good sprinkling of plaster, and by the first of August, *mulch* well about the vine.

I might here mention that I have found that in dressing the strawberry beds, which should be done about this time, the surplus growth is very good for that purpose, and does well to dig in in the spring with the manure.—Yours truly, WM. GORE, Freeport, Me., Nov., 1852.

Mr. Gore's communication, as we have said, may contain nothing very new, and yet possess much interest, as the views of every one have their value. Mr. Gore says himself that his mode of treatment "is not new or very different from what is called regular." Yet any one who reads his article carefully, will see that his treatment does deviate somewhat from the mode generally laid down by writers on the vine. We shall notice these deviations in the order in which they occur, as we think some useful hints will result from it.

1. THE SPUR SYSTEM OF PRUNING.—It is generally believed that the long rod or renewal system is best adapted to the out-door culture of the grape, particularly of our hardy native kinds. We think, however, this is an error, particularly in the more northern latitudes, and especially in the cold regions of Maine. The wood of long rods or canes does not ripen so thoroughly as the smaller and less gross spur shoots, and is less likely to be affected by the winter. The spurs also break more evenly than the long rods, and the flower buds appear nearer the base of the shoots than on those from the long canes, and consequently open sooner. The vines, too, are more readily managed by the spur mode than in the cane system.

2. PROTECTING THE VINES WITH SPRUCE BOUGHS IN WINTER.—Capital advice. The Isabella, though apparently quite

hardy, will break more evenly, and start stronger, if protected slightly, than when left fully exposed; and if nothing more is done than to loosen them from the trellis and let them lay upon the ground, they are greatly benefited. This we have tried, and, in such winters as those of 1851 and '52, with much advantage to the crop.

3. ALLOWING THE VINES TO LAY UPON THE GROUND TILL THE END OF MAY.—This practice appears to be somewhat new with Mr. Gore. Every cultivator hurries up his vines as soon as the frost is out of the ground,—if they are not left up,—regardless of the cold, dry and cutting winds which we often experience in April and May. We have no doubt the vigorous breaking of Mr. Gore's vines is entirely owing to this simple caution. We all know that the most experienced cultivators of the grape under glass always tie the vines horizontally, for some weeks, close to the front of the house, for two reasons,—to keep them from the hot rays of the sun, and to check the rapid flow of the sap to the top buds,—which causes them to break slowly and evenly. Why should not the same rule apply to out-door vines?

4. WEEDING THE VINE.—Mr. Gore's term for what gardeners call dis-budding, is very appropriate, for it is as necessary to the well doing of the vine, as it is to the success of a crop. It is in reality weeding,—stripping the vine of that which would rob what remains of most of its growth. But how few cultivators appreciate its importance! If fine large clusters, and particularly large berries, are wanted, such as Mr. Gore sent us, they can be had only by a careful weeding of the shoots.

5. SHORTENING IN THE FRUIT-BEARING SHOOTS.—This is a question which has received some attention, but not so much as it deserves. We have never believed that the shortening of the wood was attended with any benefit to the crop; on the contrary, we think the unnecessary shortening pursued by most cultivators an actual injury to the fruit. Mr. Gore seems to have discovered this; and the last season allowed his spurs to grow till September, when they were cut in only *one fourth* their length, instead of two eyes, as is usually the case.

Of all the good points in his treatment, this we think the most important; and, except so far as the symmetry of the vine is concerned, or a confusion of growth is to be prevented, we would advise just the same course adopted by Mr. Gore, as regards stopping the shoots. It is contrary to all theory to stop and check a shoot with the expectation that the growth of the fruit will be increased by preventing the loss of sap, as it is termed, in the growing wood; when a moment's reflection will show that if a fine growth is made, double the quantity of *returning* sap will go to increase the swelling of the fruit, as well as increasing the size of the wood.

6. WATERING, SYRINGING AND MULCHING.—These are all-important in the culture of the grape, and Mr. Gore's practice needs no word of comment.

Summing up, then, Mr. Gore's treatment, it is—*Thorough weeding* of the young growth,—*Protecting the vine* during winter,—*Allowing a free growth* all summer,—*Shortening* in the new shoots only *one fourth* their length,—*Early watering*, and syringing freely during the season,—and *mulching* after August, when the fruit is rapidly swelling.—ED.

ART. IV. *Proceedings of the Second Session of the American Pomological Society.*

THE second session of the American Pomological Congress was held in Philadelphia, on Monday and Tuesday, the 13th and 14th of September last.

The meeting was called to order by Dr. W. D. Brincklé, President, who delivered an interesting address. The meeting was then organized for the next two years, by the choice of the following officers: *President*, Hon. M. P. Wilder; *Vice Presidents*, Caleb Cope, A. H. Ernst, S. L. Goodale, Col. B. Hodge, and L. Young; *Corresponding Secretary*, Dr. T. P. James, Philadelphia; *Recording Secretaries*, F. R. Elliott, Ohio, J. H. Watts, New York.

After the usual preliminary business and the appointment of a committee to report a Constitution and By-laws for the government of the Congress, the meeting proceeded to the discussion of the merits of fruits:—

PEARS.

DEARBORN'S SEEDLING. Mr. Walker, of Roxbury, moved the propriety of "cancelling from the list," already recommended, the Dearborn Seedling pear. He did not think it valuable, being small, and not fitted for the market; upon its merits a long discussion ensued. S. B. Parsons, of Flushing, T. Hancock, of Burlington, Mr. Hayes, of New Jersey, Mr. Eshleman, of Pennsylvania, Mr. Barry, of Rochester, and C. M. Hovey, of Boston, each spoke well of it, and esteemed it quite too good a pear to be struck out. It was consequently retained in the list by nearly a unanimous vote.

DUCHESS OF ORLEANS. Moved by C. M. Hovey to be added to the list for general cultivation. Messrs. Saul, Walker, M. P. Wilder, Barry, and others, spoke highly of it, but as it was scarcely known out of the Boston collections, it was voted to let it remain on the list of sorts which promise well.

BRANDYWINE and CHANCELLOR. These were unanimously placed on the list of pears which promise well.

DOYENNE' D'ETÉ. C. M. Hovey moved that it be placed on the list for general cultivation. Messrs. A. H. Ernst, S. B. Parsons, Saul, Barry, and Nourse, thought it the best early pear. Mr. Walker stated that it did not do well on the quince, and the President and C. M. Hovey corroborated his remark. Its excellence being admitted, it was placed upon the list of kinds for general cultivation.

BEURRE' D'ANJOU. The President thought this a variety every way worthy of general cultivation. Messrs. Hovey, Hancock, Walker, French, and Dr. Jones, of Ohio, fully confirmed this estimate of the pear, and it was unanimously agreed that it should be added to the list of kinds for general cultivation.

MANNING'S ELIZABETH. It was moved that it be recommended for general cultivation; but, as it was scarcely known,

except to the amateur cultivators around Boston, it was voted to let it remain on the list of sorts which promise well.

BRANDE'S ST. GERMAIN. Hon. Mr. Cabot was called upon for his opinion of this pear; he did not think it worthy of general cultivation, though a good pear, and as few others knew it, it was decided to let it remain on the list of sorts of good promise.

PRATT. This also remains on the list of kinds which promise well.

OTT. Mr. Saul moved to place it on the list for general cultivation. Dr. Brincklé pronounced it a superior fruit, having tested it for four years. Several gentlemen had tasted it, and all agreed to its excellence, but as its culture is yet limited it was concluded to let it remain on the list which promise well.

ANANAS D'ETE. Mr. Saul moved it be placed on the general list, and thought it one of the best pears of the season. Mr. Elliott also liked it; Messrs. Hovey, Barry, Olmstead, Walker, and the President, thought it best to let it remain where it is; but Mr. Saul's motion prevailed by a small majority, and it was added to the list of kinds for general cultivation.

VAN ASSENE. After some discussion it was voted to let it remain on the list of sorts which promise well.

DOYENNE' BOUSSOCK. Mr. C. M. Hovey moved that it be added to the general list. Messrs. Cabot, Thomas, Walker, Hovey and Dr. Brincklé spoke very highly of it, and it was agreed that it should be placed on the list for general cultivation. [By some error it is printed Doyenné Goubault in the published copy—a very different pear. *Ed.*]

LAWRENCE. Mr. R. B. Parsons moved that it be placed on the general list. Taking all its qualities into consideration, he thought it as good as any pear. In this opinion Messrs. Ernst and Hovey concurred; but as it was yet but little known it was placed on the list of sorts which promise well.

KIRTLAND PEAR. Messrs. Elliott, Saul, Hancock and others, spoke favorably of the growth of the tree, and it was placed upon the list of good promise.

DUCHESS OF ANGOULEME. Mr. Reed moved that it be placed on the list for general cultivation. A variety of opinions were expressed as to its general merits, but it was not placed on the above list.

BEURRE' GIFFART. This, on motion of Mr. Saul, was placed on the list of pears which promise well. Dr. Eshleman, Mr. Norton, of N. Y., Baxter, of Penn., and Cabot, of Salem, each thought it a valuable early pear.

COMTE DE LAMAY. This was well spoken of, but the motion to place it on the list was withdrawn.

SOLDAT LABOURER. Its merits were discussed, but as it was yet but little known no disposition was made of it.

PARADISE OF AUTUMN. Mr. Walker moved to add it to the general list. He said it was one of the strongest growers, and certainly one of the best pears in November. [October?] Though not so generally known as some newer pears, nearly all agreed with the remarks of Mr. Walker, and it was unanimously placed on the list for general cultivation.

DUCHESS DE BERRI. On motion of Mr. Cabot this was placed on the list of good promise.

LIMON (Van Mons.) The same as the Beurré Haggerston. Mr. Walker thought it well deserving a place in the list of sorts which promise well; those who knew it praised it highly, and it was, as it fully deserves to be, placed on that list.

ST. MICHAEL ARCHANGEL. On motion of Mr. Cleveland, of New Jersey, this was placed on the list of kinds which promise well.

DILLER. Dr. Eshleman wished this placed on the list of sorts which promise well. It was imported from Germany many years ago, and is a first rate pear. Those of the committee who tasted the fruit corroborated this, and it was placed on the above list.

This ended the discussion upon pears, occupying the first, and part of the second day.

PLUMS AND CHERRIES.

The plums were then taken up, but as the discussions were brief, we deem it unnecessary to report them; the sorts ap-

proved of will be found in the list which appears in another page. We adopt the same course with the cherries.

APPLES.

SMOKEHOUSE. Dr. Eshleman proposed to add it to the list which promise well. It originated in Pennsylvania, and will keep till April. In its native locality it is highly prized, and it was placed on the above list.

MELON. Messrs. Ernst, Barry, Saul and Thomas, spoke highly of this fruit, and it was placed on the list for trial.

HAWLEY. Proposed by Mr. Watts to be added to the list of sorts which promise well. Messrs. Barry, Hovey, Col. Hodge, Hooker and Thomas, thought it one of the best, and it was added to the list.

NONSUCH (or Red Canada.) Moved by Mr. Watts for general cultivation. All spoke highly of this very old and excellent fruit, except Mr. Goodale, of Maine, who said it would be the last to grow in his section. Adopted, that it be added to the list for general cultivation, "in certain localities."

NORTHERN SPY. Mr. Saul suggested this as worthy of being added to the list for trial; it was so little known out of its native locality, that no reliable information was elicited. It was recommended for general cultivation "in certain localities."

AUTUMN BOUGH. Placed on the list for trial.

The Committee on Native Fruits then made the report which we have already given, (Vol. XVIII, p. 491.)

Mr. Cabot, in behalf of the Massachusetts Horticultural Society, invited the Convention to meet in Boston, in 1854, and the invitation was accepted.

The Constitution and By-laws reported by the Committee were adopted, and the name changed to the "American Pomological Society."

On motion of Mr. Buel, a committee was appointed, with power to add to their number, to procure subscriptions of one dollar and upwards, in order that a suitable memorial should be presented to the widow of the late Mr. Downing.

The Report of the Committee for selecting the chairman of the Fruit Committees of each State and Territory was then read and accepted. They will be found in another page.

The thanks of the meeting were then presented to the President and officers, and the meeting adjourned to hear an Eulogy upon the life of Mr. Downing, by the Hon. M. P. Wilder.

LIST OF FRUITS ADOPTED BY THE AMERICAN POMOLOGICAL SOCIETY, AT ITS DIFFERENT SESSIONS.

FRUITS WORTHY OF GENERAL CULTIVATION.

APPLES.

American Summer Pearmain,
Baldwin,
Bullock's Pippin,
Danvers Winter Sweet,
Early Harvest,
Early Strawberry,
Fall Pippin,
Famense,
Gravenstein,
Hubbardston Nonsuch,
Bough,
Lady Apple,
Porter,
Red Astrachan,
Rhode Island Greening,
Roxbury Russet,
Summer Rose,
Swaar,
Vandervere,
White Seek-no-Further,
Wine Apple, or Hays,
Winesap,

And for particular localities,

Nonsuch,
Esopus Spitzenburg,
Newtown Pippin,
Northern Spy,
Yellow Bellflower.

PEARS.

Ananas d'Ete,
Andrews,
Belle Lucrative,
Beurré d'Anjou,
Beurré d'Aremberg,
Beurré Bosc,
Bloodgood,

Buffum,
Dearborn's Seedling,
Doyenné d'Ete,
Doyenné Boussock,
Flemish Beauty,
Fulton,
Golden Beurré of Bilboa,
Louise Bonne of Jersey,
Madeleine,
Paradise of Automne,
Rostiezer,
Seckel,
Tyson,
Urbaniste,
Uvedale's St. Germain, for baking,
Le Curé,
Williams's Bon Chrétien, or Bartlett,
Winter Nelis,
And for particular localities,
Grey Doyenné,
White Doyenné.

APRICOTS.

Breda,
Large Early,
Moorpark.

NECTARINES.

Downton,
Early Violet,
Elruge.

PEACHES.

Bergen's Yellow,
Coolidge's Favorite,
Crawford's Late,
Early York, serrated,
Early York, large,
George the IVth,
Grosse Mignonne,

Morris White,
Old Mixon Free,
And for particular localities,
Heath Cling.

PLUMS.

Bleecker's Gage,
Coe's Golden Drop,
Frost Gage,
Green Gage,
Jefferson,
Lawrence's Favorite,
Purple Gage,
Purple Favorite,
Washington,

And for particular localities,
Imperial Gage.

CHERRIES.

Belle Magnifique,
Black Eagle,
Black Tartarian,
Downer,
Downton,
Elton,
Early Richmond, for cooking,
Graffion, or Bigarreau,
Knight's Early Black,
May Duke.

GRAPES.*Under Glass.*

Black Hamburgh,
Black Prince,
Black Frontignan,
Chasselas de Fontainebleau,

Grizzly Frontignan,
White Frontignan,
White Muscat of Alexandria.

Open Culture.

Catawba,
Isabella.

RASPBERRIES.

Fastolf,
Franconia,
Red Antwerp,
Yellow Antwerp.

STRAWBERRIES.

Boston Pine,
Hovey's Seedling,
Jenney's Seedling,
Large Early Scarlet.

CURRENTS.

Black Naples,
May's Victoria,
Red Dutch,
White Dutch,
White Grape.

GOOSEBERRIES.

Crown Bob,
Early Sulphur,
Green Gage,
Green Walnut,
Houghton's Seedling,
Ironmonger,
Laurel,
Red Champagne,
Warrington,
Woodward's Whitesmith.

NEW VARIETIES WHICH PROMISE WELL.**APPLES.**

Autumn Bough,
Hawley,
Melon,
Mother,
Smoke-house.

PEARS.

Brandywine,
Brande's St. Germain,
Beurré Giffart,

Chancellor,
Doyenné Goubault,
Duchesse d'Orleans,
Duchesse de Berri,
Diller,
Jalousie de Fontenay Vendée,
Kirtland,
Limon,
Manning's Elizabeth,
Nouveau Poiteau,

Swan's Orange,
Ott,
Pratt,
St. Michael Archangel,
Stevens's Genesee,
Striped Madeleine,
Van Assene.

PLUMS.

McLaughlin,
Prince's Yellow Gage,
Rivers's Favorite,

St. Martin's Quetsche.

CHERRIES.

Bigarreau Monstreuse de Bay,
Early Purple Guigne,
Reine Hortense.

GRAPES.

Diana.

RASPBERRIES.

Knevett's Giant.

STRAWBERRIES.

Burr's New Pine.

A very large and handsome collection of fruits was contributed by the members and others, which attracted great attention from our Philadelphia friends. The reports of State committees we shall endeavor to notice at another time.

ART. V. *Notes on Flower Garden Plants.* By HORTUS.

MUCH change has of late years been effected in the arrangement and management of flower gardens. Annual flowers are almost discarded, and their place supplied with others of a more permanent character. Whether the change is an improvement, we will not say. In our younger days, the glory and pride of the flower gardener lay in his rich display of annuals intermixed among the herbaceous flowering plants, and when well arranged with regard to habit, color, and size, produced an effect which one rarely meets with in these days of groups and masses. The flower garden was always well stocked, perhaps not always in a *blaze* of flowers, but producing an equal, if not a more interesting, effect in diversity and beauty of foliage, and there are many, (and we are willing to be classed among the number,) who admire a plant as much for the beauty of its foliage, as its flowers. Masses of petunias, verbenas, scarlet geraniums, &c., are certainly objects of admiration while in their beauty, but their season is limited; the "first frost" renders them commonplace enough, and the flower beds are empty for one half of

the year. They might be filled with hyacinths, crocuses, tulips, and other spring-flowering bulbs, but we have not found the system to work well in practice :—First ; the bulbs are not matured in season to admit of being taken up in time to plant the summer flowers, and the same difficulty occurs in the fall, by having to plant the bulbs before the beauty of the plants are over. A few hardy evergreens, kept on purpose in pots or otherwise, may be used with advantage in filling up these beds during winter. In geometrical flower gardens, where a series of figures are designed and formed with mathematical precision forming a perfect whole, so that the removal of any one of the figures would be an evident disarrangement of the plan, massing is most effective. We have seen gardens of this character, each bed filled with a distinct sort, arranged on the principle of contrasting colors, which, for dazzling brilliancy, could not well be surpassed. A garden of this kind is well adapted for placing near the house, where the arrangement can be seen from the windows, for their beauty is most effective when viewed from a distance ; when we come to inspect them closely, there is an apparent stiffness and studied formality not universally admissible in rural scenery. These highly artistic gardens we consider in best taste when formed in connection with objects of an equally artificial character. When the house is fronted with a terrace, and the latter broad enough to admit of it, then we think nothing can equal the effect of an elegantly-designed geometrical flower garden, with its accompaniments of fountains, vases, sundials, and statuary. Situated thus, it becomes necessary to decorate the flower beds in style to correspond with surrounding objects, and here the system of contrasting masses of vivid colors, if skilfully managed, would, in our opinion, be in most perfect taste.

Our principal objection to the above style of flower arrangement lies in its misapplication. We have seen what would otherwise have been a beautiful lawn, completely marred in effect by being cut up into a formal design of flower beds. A smooth, well-kept lawn immediately in front of a mansion, flanked with appropriate beltings of trees, bor-

dered profusely with rhododendrons and kalmias, (two evergreens unsurpassed for real beauty, and which are to be had in plenty for the trouble of lifting out of the woods,) with here and there a single specimen of such trees as the Japan cedar, Hemlock spruce, Chili pine, and Deodar cedar sparingly introduced, is strikingly beautiful. In a pleasure ground of this description we question whether the introduction of flower beds would be an improvement. If anything was allowable we should think it an oval bed filled with roses, encircled by an edging of open wire-work to conceal the cut earth, and convey the idea of a huge basket of flowers. Throw an arch over the centre, to form a handle to the basket, and the deception is complete. Suppose there were two such beds, we would plant one of them with white roses, covering the ground with the scarlet verbena "*Robinson's Defiance*," and the other with dark colored roses, similarly covered with the white verbena "*Hovey's America*," with "*morning glories*" twining on the arches. Such a spot would be completely spoiled if dotted all over at regular distances with trees, even although they were fine specimens. We would plant them mostly at the sides, keeping the centre comparatively clear. The Japan cedar (*Cryptomeria japonica*) is a fine airy looking tree, although somewhat thin, and apt to get into a "*brown study*" in cold weather. The Chili pine (*Araucaria imbricata*) is, on the contrary, an uncouth, sombre looking subject, but has a fine effect in the distance. The White pine (*Pinus strobus*) is a beautiful foliaged, noble looking tree in all stages of its growth. The Deodar cedar is one of the most beautiful of evergreen trees, silvery foliage, and graceful bending branches; but for denseness of fine green foliage, combined with an elegant wavy habit, where is there anything superior to the Hemlock spruce?

Isolated flower beds, or even where the eye can take in several at a time, are rendered more effective when planted with flowers of different habits and color, than when wholly composed of one variety. There is much room for refined taste and fancy in this composition. A centre of scarlet geraniums, surrounded with white petunias, these again bor-

dered with an edging of scarlet verbenas, has a fine effect. So also has a bed planted thinly towards the centre with the blue *Salvia patens*, filling through and around them with *Gaillardia picta*, belting the whole with a white verbenas. We once saw a bed composed of salvias, which struck us as very fine. First the blue, then the white (*Salvia patens alba*), then the scarlet, not distinctly demarcated, but the one color gradually blending into the other. Very beautiful variegated beds of this kind can be formed with different colored petunias or verbenas, although they are of rather dwarf habit to give sufficient effect by themselves in a large bed. A suitable centre may be had by planting heliotrope or the oak-leaved geranium, allowing the smaller but more profuse flowering plants to ramble over them. If surrounded by grass, the darker colored flower should be placed in the centre of the bed, choosing those of a lighter tint, such as orange or white, next the grass. If gravel forms the boundary, these positions of color may be reversed, gravel being generally of a light color.

Long linear beds, partly filled with herbaceous plants, decorated with annuals and other tender flowers during summer, often occur in gardens, and when the former are arranged with regularity, these borders can be rendered very showy and interesting. The best arrangement of this kind that we have seen was nearly as follows: At the back was a row of hollyhocks; alternating with these, and about eighteen inches in advance, was a row of dahlias, with plants of columbine, *Lysimachia verticillata*, delphiniums, phlox, chrysanthemums, &c., between them; next came a line of blue salvias and double white feverfew; then came balsams, coxcombs, *eschscholtzia*, asters, dianthus, and other dwarf herbaceous plants. Nearer the walk came petunias, verbenas, snowdrops, cowslips, grape hyacinths, &c., finished with a white streak of *Nierembergia filicaulis*. The whole, when seen from a distance, was superb, and a closer examination did not lessen its effect. To perfect an arrangement of this kind requires skill and experience to place the colors in effective relations. It is true that a beautiful flower will still retain

its beauty under whatever circumstances it may be beheld; but, besides its own intrinsic beauty, it may be placed so as to impart beauty to others, and, if in contact with an opposing color, both are better developed, and their individual beauty increased rather than diminished.

These remarks having extended further than was anticipated, the "Notes on Plants" are reserved for a future paper.

January, 1853.

ART. VI. *Dielytra Spectabilis*; with an Engraving of the Plant. By the EDITOR.

EVERY year adds to the importance of Mr. Fortune's late visit to China, in search of new plants, under the auspices of the London Horticultural Society. At first it was stated that the results were not so great as were anticipated from the time and expense of the visit. Perhaps they were not to the English Flora; but to that of our own country his tour has proved of very great value, second only to that of Siebold to Japan. More beautiful *hardy* shrubs and plants have been added to our collections than from any other source, of late years, scarcely excepting that of Douglass to the Northwest Coast. The *Weigelia rosea*, *Forsythia viridissima*, and Fortune's Yellow Rose, are three well known and splendid additions to our hardy shrubs; the *Cryptomeria* to our evergreen trees; the *Anemone japonica* and *Calystegia pubescens* to our hardy plants, and the *Gardenia Fortunei* to our green-houses. We now have to add the superb *Dielytra spectabilis*, which has proved one of our finest hardy herbaceous flowers. From the hardiness of so many of these Chinese plants, we may reasonably anticipate that several others will prove equally hardy—particularly the *Daphne Fortunei*, *Jasminum nudiflorum*, *Edgeworthia chrysantha*, the White Wistaria, Double Chinese peach, &c., &c.

Dielytra spectabilis (fig. 5,) was introduced by Mr. Fortune in 1846, and was among the last lot of plants which he

sent home, or rather which he brought home, for he accompanied his last packages, numbering in all eighteen, which were filled with plants. These were all well cared for in the garden of the London Horticultural Society, and as they were mostly duplicated, only two or three, and those of no great value, were lost. This *Dielytra* soon came into bloom, and proved to be such a beautiful thing that it was rapidly mul-



Fig. 5. Dielytra spectabilis.

tiplied and distributed, and now, only six years from its introduction, we find it in almost every nursery catalogue in England, and in many fine collections in our own country.

Last spring it flowered in great beauty in the nurseries of Messrs. Winship & Co., and in the amateur collection of Mr. J. Jackson, of Boston, and specimens exhibited by these gentlemen at the hall of the Massachusetts Horticultural So-

ciety, were objects of great attraction. Its strong and graceful racemes of lovely pink flowers, rendered doubly beautiful from their peculiar, yet elegant form, so well delineated in our figure, give it a charm which few, if any, of our hardy plants possess. It is not till the plants get well established that they show what an elegant thing it is.

The *Dielytra spectabilis* has proved perfectly hardy in our gardens. It grows from three to four feet high, with large compoundly ternate leaves—not unlike some of the tree peonies,—with the same glaucous aspect, and from the base of its plentiful foliage, spring strong stems which branch off in axillary racemes, drooping prettily, and loaded with blossoms, each about an inch long. These appear in June, and continue in flower for a long time.

Botanists appear to differ in regard to its name. *Linnaeus* called it *Fumaria spectabilis*; *Persoon*, *Corydalis spectabilis*; *Borkhausen*, *Capnorchis spectabilis*; *Decandolle*, *Dielytra spectabilis*, and *Van Houtte*, *Dicentra spectabilis*; but *Dielytra* seems to be now generally adopted. Mr. Fortune states that its Chinese name is *Hong-Pah-Moutan Wha*, or the “Red and White Moutan flower;” the Chinese take their characters from the general habit, and as the leaves resemble the Moutan peony, they call it the “Red and White Moutan flower.”

The species is not only a fine hardy plant, but is admirably adapted for pot cultivation, blooming abundantly and freely under ordinary treatment. Two years ago, (Vol. XVII, p. 321,) we saw it in bloom in the collection of Messrs. Hogg & Son, of Yorkville, N. Y. It may also be had in bloom late in the season by growing it from cuttings and planting them out, when they flower in August and September.

It thrives in any good garden soil; but that which is light, rich and deep, suits it best; in such a situation it will produce a dozen or more of its stems, covered with hundreds of flowers. A slight protection of leaves or litter is sufficient in winter. To grow it in the greenhouse the roots should be taken up carefully and potted, in September or October, and afterwards placed in a half shady situation till frost. It may

then be put into a frame, and taken into the house whenever it is wanted to bloom. It is easily propagated by division of the roots, or by cuttings, in the same way as phloxes or dahlias.

ART. VII. *Floricultural and Botanical Notices of New and Beautiful Plants, figured in Foreign Periodicals; with descriptions of those introduced to, or originated in, American Collections.*

THE POMPONE CHRYSANTHEMUMS.—These fine varieties of the Chinese or Chusan daisy-flowered kind are rapidly gaining favor, and will soon supplant the large-flowered ones, to some extent, in the estimation of all amateurs. The improvement in the latest varieties has been very great, and they are now almost as perfect in form as the ranunculus. Many of the first ones which were raised were quite imperfect, wanting both in shape and variety of color; but those of 1851 and 1852 have been great improvements on the older ones, and have been the admiration of all who appreciate beautiful flowers.

Already more than one hundred varieties have been raised, mostly by the French and Belgian florists, and great accessions will probably be made to the list in the course of a few years. Some sixty or eighty kinds have been added to American collections, embracing a variety of tints and colors. We have flowered upwards of fifty sorts the past autumn, among them some of remarkable beauty. The following are the names of a few of the very newest and best, and we shall give a full description in another number:—

Tacité, Nelly, Lais, Dame Blanche, Jason, La Rousse, Graziella, Justine Tessier, Sathaniel, Rose Pompone, Jonquille, Nelly le Clerc, Louis Petou, Madame Jules d'Evry, Atropos, Zephyr, Croustignac, Attala, Bouquet Parfait, Junon Alveolifolium, &c., &c.; the last two, anemone-flowered ones, and very beautiful.

189. *CURCUMA ROSCOEA'NA Wallich.* MR. ROSCOE'S CURCUMA. (*Scitamineæ.*) Asia.

A greenhouse or stove plant; growing two to three feet high; with yellow flowers; appearing in July; cultivated in leaf-mould, peat and sand; increased by divisions of the roots. *Bot. Mag.*, 1852, pl. 4667.

This is a very showy species of this singular genus, whose beauty is derived from the long and dense spikes of flowers, of no great beauty in themselves, but, being surrounded by spreading tubular *bractes*, of a brilliant orange scarlet, have a very striking appearance. It was sent to England by Dr. Wallich, and first flowered at Syon House. It is there treated as a stove plant, but in our warmer climate it would undoubtedly bloom freely treated as a warm greenhouse plant,—blooming in July or August. (*Bot. Mag.*, Sept.)

190. *MECONO'PSIS WALLI'CHII Wallich.* DR. WALLICH'S MECONOPSIS. (*Papaveraceæ.*) Sikkim Himalaya.

A greenhouse or frame plant; growing two to three feet; with blue flowers; appearing in June; grown in good light soil; increased by seeds and division of the roots. *Bot. Mag.*, 1852, pl. 4668.

A very handsome plant found by Dr. Hooker, in Sikkim Himalaya, who sent home seeds to Kew, where it flowered last year. It is a poppy-looking plant, with a sub-glaucous green foliage, and large, pale blue flowers, which are drooping on the ends of the tall stems. At Kew, it was grown and flowered in a pot in a frame, and undoubtedly with us will be a half-hardy plant,—perhaps quite hardy. Its very large blue flowers will be conspicuous objects wherever grown. (*Bot. Mag.*, Sept.)

191. *BRYA EBE'NUS Decand.* JAMAICA EBONY. (*Leguminosæ.*) Jamaica.

A hothouse plant; growing five or six feet high; with orange-colored flowers; appearing in spring; grown in loam and leaf-mould; increased by cuttings. *Bot. Mag.*, 1852, pl. 4670.

A well known West India shrub, or small tree, but little seen in cultivation. Grown in a warm stove, it “maintains a shrubby character for a very great number of years, with pretty, evergreen, box-like foliage, bearing copious, bright orange, pea-shaped flowers, in the month of May, yielding a delicious perfume.” It inhabits the savannas and dry hills of Jamaica,

and reminds the traveller of the broom of Europe. The gay color and sweet odor of its flowers render it well worthy of introduction into our collections. (*Bot. Mag.*, Sept.)

192. *LI'LIIUM GIGA'NTEUM Wallich. GIGANTIC LILY. (Liliacæ.) Nepal.*

A hardy bulb; growing ten feet high; with white and purple flowers; appearing in summer; increased by offsets; grown in rich black mould. *Bot. Mag.*, 1852, pl. 4673.

The discovery of this Prince of Lilies is due to Dr. Wallich, who detected it in moist, shady places in Sheopore, in Nepal. "This majestic lily," he writes, "grows sometimes to a size which is quite astonishing, measuring full ten feet from the base of the stem to its apex. The flowers are proportionally large and delightfully fragrant,—not unlike those of the common white lily." It does not degenerate in cultivation. It flowered in the Comely Bank nursery, Edinburgh, last July, and attained the height of ten feet in one season; the flower portion occupying twenty inches. "Such a raceme of flowers, accompanied by leaves measuring ten to twelve inches long, and eight inches broad, must have afforded a striking spectacle; and which has only been witnessed at the nursery just mentioned, where the plant was raised from seeds received five or six years ago, but has only now blossomed for the first time in Europe." The flowers are white, pendulous, shaped like the common white lily; three of the petals having slight purple streaks inside, and the other three, broader, with a deep purple tinge on the outside, forming a bold and pleasing contrast.

There is no doubt it will prove as hardy in our climate as the Japan lily. Major Madden found it common in damp, thick forests of the Himalaya, and the Provinces of Kamoon, Gurwhal, &c. It grows in rich black mould, the bulbs close to the surface, at from 7500 to 9000 feet above the level of the sea, where it is covered with snow from November to April. The hollow stems are commonly from six to nine feet high, and are used for musical pipes.

It will be a magnificent addition to our hardy garden bulbs; and its gigantic head of silver and purple flowers, so

deliciously fragrant, will be conspicuous objects,—surpassing in grandeur, if not in brilliancy, the lovely Japan species and varieties. (*Bot. Mag.*, October.)

193. *TACSONIA SANGUINEA* Smith. BLOOD-COLORED TACSONIA. (*Passifloræ.*) Trinidad.

A greenhouse climber; growing ten feet high; with deep red flowers; appearing in summer; increased by cuttings; cultivated in light rich soil. *Bot. Mag.*, 1852, pl. 4674.

A new and very handsome species of *Tacsonia*, received by Messrs. Low & Co., from Trinidad, and flowered in their nursery last July. Mr. Low states that “it is a very free flowerer, and will make a first rate conservatory plant, as it does not require much heat, and is easy of cultivation.” On this account, it will be a much more desirable species than many others which require the temperature of the hothouse, are difficult to manage, and of less beauty when in bloom. The leaves are large, sometimes ovate, acute, simple,—sometimes cordate, and deeply three-lobed,—the upper side glabrous and dark green. Flowers deep rose colored on both sides. (*Bot. Mag.*, October.)

194. *BEGONIA HERNANDIEFOLIA* Hooker. HERNANDIA-LEAVED BEGONIA. (*Begoniaceæ.*) Veraguas.

A stove plant; growing about eight inches high; with rose-colored flowers; appearing in summer; increased by a division of the roots; grown in leaf mould, peat and sand. *Bot. Mag.*, 1852, pl. 4675.

“A most lovely species, with singularly shaped, very thick, concave, and peltate leaves, deep blood color beneath, and the copious petioles, peduncles, and flowers, of a full rose-red.” A fine stemless species, growing only eight or ten inches high, and undoubtedly one of the prettiest of the group. In our climate it will probably prove to be a free blooming plant under our ordinary greenhouse treatment, and will consequently be a fine companion to the *B. parviflora*, *fuchsoides*, &c., which contribute so much to the gaiety of the greenhouse in summer. (*Bot. Mag.*, October.)

MISCELLANEOUS INTELLIGENCE.

ART. I. *Societies.*

NEW YORK HORTICULTURAL—The annual meeting of this Society, for the election of officers for the ensuing year, was held at Stuyvesant Institute, on Friday evening, December 10, 1852, and the following gentlemen were elected :—

President—Shepherd Knapp.

Vice Presidents—W. Coventry, W. G. Hunt, W. W. Livermore, H. Wad-
dell, N. K. Anthony, and John Groshan.

Treasurer—J. C. Parsons.

Corresponding Secretary—Geo. W. Curtis.

Recording Secretary—P. B. Mead.

Librarian—A. Bridgeman.

Literary Committee—P. B. Mead, and F. J. Smith.

Finance—Chas. Oakley, H. M. Scheiffelin, and A. A. Leggett.

Fruit—T. Hogg, Jr., W. S. Carpenter, and Charles More.

Cut Flowers and Plants—J. E. Rauch, T. Dunlap, and J. W. Wood.

Vegetables—J. Cutlip, D. Clark, and John Tick.

Distribution of Seeds, &c.—J. Newhouse, C. F. Lindsley, and A. Knox, Jr.

Premiums—Geo. Gamgee, and Alexander Gordon.

AMERICAN POMOLOGICAL—The Constitution and By-laws adopted by the Society, are as follows :—

CONSTITUTION.

Article 1. The name of this Association shall be the American Pomological Society.

2. Its object shall be the advancement of the Science of Pomology.

3. It shall consist of delegates appointed by Horticultural, Agricultural, and kindred Societies in the United States and British America, and of such other persons as take an interest in the welfare of the Association, and are desirous of promoting its aims.

4. The meetings shall be held biennially, at such time and place as may be designated by the Society; and special meetings may be convened at any time, on the call of the President.

5. The officers shall consist of a President, one Vice President from every State, Territory and Province represented, a Treasurer and a Secretary; and shall be elected by ballot or otherwise at every biennial meeting.

BY-LAWS.

1. The President shall have a general superintendence of the affairs of the Society during its vacation; give due public notice of the time and place of meeting; preside at its deliberations; deliver an address on some subject relating to Pomology, at every biennial meeting; and appoint all committees, unless otherwise directed.

2. In case of the death, sickness, or inability of the President, his official duties shall devolve on one of the Vice Presidents, according to the order in which they stand on the minutes.

3. The Treasurer shall receive all moneys belonging to the Society, and pay over the same on the written orders of the President.

4. The Secretary shall, with the assistance of a reporter appointed by him, keep a record of the transactions of the Society for publication.

5. There shall be an Executive Committee, consisting of five members, together with the President and Vice Presidents *ex officio*, five of whom shall constitute a quorum, who shall manage the affairs of the Society during its vacation.

6. State Fruit Committees, consisting of five members each, for every State, Territory and Province represented, and a general chairman over all, shall be appointed biennially; it shall be the duty of the several State Fruit Committees to forward to the general chairman, one month before every biennial meeting, State Pomological Reports, to be condensed by him for publication.

7. A Standing Committee on Native Fruits, consisting of seven members, shall be appointed by the President immediately after his election. It shall be the duty of this committee to report annually on Native Fruits, and also to examine, and, before the close of the session, report on all new seedling varieties that may be exhibited; and to make an *ad interim* report on those that were exhibited in an unripe condition at the meeting of the Society, but had subsequently attained a state of maturity; and on such other seedlings as may have been submitted to their inspection during the Society's vacation.

8. A standing committee on Foreign Fruits, consisting of seven members, shall be appointed, whose duties shall be similar to those of the committee in By-Law seven.

9. A standing committee on synonyms, consisting of seven members, shall be appointed biennially.

10. Vacancies occurring in committees shall be filled by the chairman of each, and in case of his death or inability to serve, his place shall be supplied by the President of the Society.

11. The members of this Society shall pay two dollars biennially, and twenty dollars paid at one time shall constitute one life-membership.

12. *Order of Business.*—1. Credentials of delegates presented; 2. Address of the President; 3. Election of officers; 4. Reports of State Fruit Committees; 5. New business.

13. The Constitution and By-Laws may be altered or amended at any regular biennial meeting, by a vote of two thirds of the members present.

The committees are as follows:—

On Foreign Fruits—C. M. Hovey, chairman, Mass.; P. Barry, N. Y.; C. Downing, N. Y.; Dr. J. P. Kirtland, Ohio; R. Buist, Pa.; S. L. Goodale, Me.; C. B. Lines, Conn.

On Native Fruits—Dr. W. D. Brincklé, chairman, Pa.; F. R. Elliott, O.; E. Tatnall, Jr., Del.; T. Hancock, N. J.; Col. B. Hodge, N. Y.; H. P. Byram, Ky.; R. Manning, Mass.

On Synonyms—Hon. J. S. Cabot, chairman, Mass.; J. J. Thomas, and A. Saul, N. Y.; A. H. Ernst, O.; Dr. J. A. Kennicott, Ill.; S. D. Pardee, Conn.; J. D. Fulton, Pa.

State Fruit Committees—Hon. S. Walker, chairman.

P. Barry, chairman for	New York,	S. Feast, chairman for	Maryland,
T. P. James,	Pennsylvania,	William Summer,	S. Carolina,
Dr. Lewis P. Bush,	Delaware,	Henry K. Burgwyn,	N. Carolina,
Joshua Peirce,	Dist. Columb.	R. Buchanan,	Ohio,
Rt. Rev. S. Elliott, Jr.,	Georgia,	Dr. J. A. Kennicott,	Illinois,
Yardley Taylor,	Virginia.	J. D. G. Nelson,	Indiana,
Col. Henry Little,	Maine.	Capt. F. W. Macondry,	California,
H. F. French,	N. Hampshire,	Charles A. Peabody,	Alabama,
Dr. E. Wight,	Massachus'tts,	A. G. Sems,	Florida,
C. Goodrich,	Vermont,	E. D. Hobbs,	Kentucky,
Stephen H. Smith,	Rhode Island,	Thomas Afflick,	Mississippi,
George Gabriel,	Connecticut,	James Grant,	Iowa,
William Reid,	New Jersey.	Thomas Allen,	Missouri.

ART. II. Massachusetts Horticultural Society.

Saturday, January 1, 1853.—The stated quarterly meeting of the Society was held to day. The President took the chair, and addressed the members in some appropriate remarks upon the progress of Horticulture, the present condition of the Society, and its means of future usefulness.

Mr. C. M. Hovey, chairman of the Committee on the Library, submitted the annual report, enumerating the books purchased the last year, and asking for the usual appropriation of \$150. The report was accepted.

Mr. C. M. Hovey, from the committee appointed for that purpose, reported that a piece of plate of the value of \$25, be presented to Mr. E. A. Story, for his services on the Flower Committee. Accepted.

Capt. Lovett, from another committee, reported that a piece of plate of the value of \$50, be presented to Mr. Breck, for his faithful services as chairman of the Committee of Arrangements, for some years. Accepted.

The President, and Messrs. Richards and Breck, were appointed a committee to consider the propriety of holding occasional meetings for the discussion of subjects of interest to the members, agreeably to the suggestion of the President, in his address.

On motion of Mr. Walsh, it was voted that all medals awarded as premiums be suitably inscribed, at the expense of the Society, before distribution.

The committee appointed to nominate a Committee of Arrangements for the present year, reported the names of the following gentlemen, and they were unanimously elected :

Jos. Breck, chairman, Dr. E. Wight, W. R. Austin, C. M. Hovey, J. Lovett, O. Johnson, P. B. Hovey, E. A. Story, D. Haggerston, F. L. Winship, A. McLennan, W. C. Strong, and A. Bowditch.

The committee were ordered to fix the days of the Exhibition, and report next meeting.

Squash seeds were received from J. F. Allen, and seeds from G. Mountfort, United States consul, Island of Candia, for distribution.

The Executive Committee reported the following schedule of premiums for 1853, as having been approved.

Adjourned one week, to January 8.

SCHEDULE OF PRIZES FOR 1853.

AMOUNT APPROPRIATED, TWO THOUSAND FIVE HUNDRED AND TWENTY DOLLARS.

PROSPECTIVE PRIZES.

For objects to be originated subsequent to A. D. 1846, and which, *after a trial of five years*, shall be deemed equal, or superior, in quality and other characteristics, to any now extant.

For the best seedling Pear, the Society's large Gold Medal, valued at	\$60 00
" " " " Apple, " " " "	60 00
" " " " Hardy Grape, " " " "	60 00
" " " " Plum, the Appleton Gold Medal,	40 00
" " " " Cherry, the Lowell Gold Medal,	40 00
" " " " Tree Pæonia, the Appleton Gold Medal,	40 00
" " " " Herbaceous Pæonia, the Lowell Gold Medal,	40 00
" " " " Potato, the Society's large Gold Medal,	60 00

After a Trial of Three Years.

For the best seedling Strawberry, the Lyman Plate,	50 00
" " " " Raspberry, the Bradlee Plate,	40 00
" " " " Hardy Rose, the Society's large Gold Medal,	60 00
" " " " Camellia, the Society's large Gold Medal,	60 00
" " " " Azalea Indica, the Lowell Gold Medal,	40 00
" " " " Blackberry,	40 00
" " " " Gooseberry,	30 00
" " " " Currant, Red, or White,	30 00

PRIZES FOR GARDENS, GREENHOUSES, &c.

AMOUNT APPROPRIATED, TWO HUNDRED DOLLARS.

ORDERED, *That the following Prizes, to be awarded in 1853, be offered by the Society, viz:—*

For the most economically managed, best cultivated, and most neatly kept Garden or Grounds, through the season,	\$25 00
For the second best,	15 00

For the most economically managed, best cultivated, and most neatly kept Fruit Garden, through the season,	25 00
For the second best,	15 00
For the most economically managed, best cultivated, and most neatly kept Flower Garden, through the season,	20 00
For the second best,	10 00
For the most economically managed, best cultivated, and most neatly kept Vegetable Garden, through the season,	20 00
For the second best,	10 00
For the best managed, most economically conducted, and well kept Greenhouse, through the season,	20 00
For the second best,	10 00
For the best managed, most economically conducted, and well kept Grapery, through the season, with or without fire heat,	20 00
For the second best,	10 00

The Rules and Regulations are the same as last year. All applications to visit gardens must be made before May 1.

PRIZES FOR FRUITS DURING THE SEASON.

AMOUNT APPROPRIATED, SIX HUNDRED AND TWENTY DOLLARS.

For the best and most interesting exhibition of Fruits during the season, the Lowell plate, valued at	\$20 00
For the second best,	12 00
APPLES. —For the best twelve Summer Apples, on or before the last Saturday in August,	6 00
For the next best,	4 00
For the best twelve Autumn Apples, on or before the last Saturday in November,	6 00
For the next best,	4 00
For the best twelve Winter Apples, on or before the third Saturday in December,	6 00
For the next best,	4 00
APRICOTS. —For the best twelve, on or before the last Saturday in August,	5 00
For the next best,	3 00
BLACKBERRIES. —For the best specimens, not less than two boxes,	5 00
For the next best,	3 00
For the next best,	2 00
CHERRIES. —For the best specimens, not less than two boxes,	5 00
For the next best,	3 00
For the next best,	2 00
CURRENTS. —For the best specimens, not less than two boxes,	5 00
For the next best,	3 00

Figs. —For the best twelve specimens,	\$5 00
For the next best,	3 00
GOOSEBERRIES. —For the best specimens, not less than two boxes,	4 00
For the next best,	2 00
GRAPES. —For the best specimens, grown under glass, on or before the first Saturday in July,	10 00
For the next best,	7 00
For the best specimens, grown under glass, subsequently to the first Saturday in July,	10 00
For the next best,	7 00
For the best specimens of Isabella Grapes,	5 00
For the next best,	3 00
For the best specimens of Diana Grapes,	5 00
For the next best,	3 00
MUSK MELON. —For the best Musk Melon, in open culture, on or before the last Saturday in September,	5 00
For the next best, raised by open culture, on or before the last Saturday in September,	3 00
NECTARINES. —For the best twelve specimens,	5 00
For the next best,	3 00
PEACHES. —For the best twelve specimens, grown under glass, on or before the second Saturday in July,	6 00
For the next best,	4 00
For the best twelve specimens, grown in open culture,	6 00
For the next best,	4 00
For the next best,	2 00
PEARS. —For the best collection, not exhibited before this year, with a written description of the same, the Society's plate,	10 00
For the next best,	6 00
For the best twelve Summer Pears, on or before the last Saturday in August,	6 00
For the next best,	4 00
For the best twelve Autumn Pears, on or before the last Saturday in November,	6 00
For the next best,	4 00
For the best twelve Winter Pears, on or before the third Saturday in December,	8 00
For the next best,	6 00
For the next best,	4 00
PLUMS. —For the best specimens, not less than two boxes,	4 00
For the next best,	3 00
For the next best,	2 00
QUINCES. —For the best twelve specimens,	4 00
For the next best,	2 00
RASPBERRIES. —For the best specimens, not less than two boxes,	5 00
For the next best,	3 00
For the next best,	2 00

STRAWBERRIES. —For the best specimens, not less than two boxes,	6 00
For the second best,	4 00
For the third best,	3 00

PRIZES FOR FRUITS.

To be awarded on the first day of the Annual Exhibition.

For the greatest number of best grown varieties of named Pears, at least three specimens of each, the specimens to be at the disposal of the Chairman of the Fruit Committee, for two weeks, the Lyman Plate, valued at	40 00
For the second best, subject to the same rules and conditions,	20 00
For the greatest number of best grown varieties of named Apples, at least three specimens of each, the specimens to be at the disposal of the Chairman of the Fruit Committee, for two weeks, the Lyman Plate, valued at	40 00
For the second best, subject to the same rules and conditions,	20 00
APPLES. —For the best twelve varieties, of twelve specimens each, the Society's Plate, valued at	20 00
For the second best,	15 00
For the third best,	12 00
For the fourth best,	8 00
For the best dish of Apples, twelve specimens of one variety,	6 00
For the second best,	5 00
For the third best,	4 00
For the fourth best,	3 00
PEARS. —For the best twelve varieties, of twelve specimens each, the Lyman Plate, valued at	20 00
For the second best,	15 00
For the third best,	12 00
For the fourth best,	8 00
For the best dish of Pears, twelve specimens of one variety,	6 00
For the second best,	5 00
For the third best,	4 00
For the fourth best,	3 00
ASSORTED FRUIT. —For the best basket of Fruit, of various kinds,	10 00
For the second best,	7 00
GRAPES. —For the best five varieties, two bunches each,	12 00
For the second best five varieties, two bunches each,	8 00
For the third best five varieties, two bunches each,	5 00
For the best two varieties, two bunches each,	6 00
For the second best,	4 00
For the third best,	2 00
PEACHES. —For the best dish, of not less than twelve,	5 00
For the second best,	3 00

☞ The Prizes and Gratuities will be awarded on the following days:—

For Cherries, forced Grapes, forced Peaches, and Strawberries, on the last Saturday in July.

For Summer Apples, Apricots, Blackberries, Currants, Gooseberries, Summer Pears, and Raspberries, on the last Saturday in August.

For Foreign and Native Grapes, Nectarines, Peaches, Plums, and Muskmelons, on the last Saturday in October.

For Autumn Apples, Figs, Autumn Pears, and Quinces, on the last Saturday in November.

For Winter Apples, Winter Pears, New Pears, and for the "Exhibition during the season," on the third Saturday in December.

☞ Competitors for Prizes are particularly referred to the Rules and Regulations, which will be strictly adhered to by the Committee.

PRIZES FOR PLANTS, FLOWERS AND DESIGNS.

AMOUNT APPROPRIATED, SEVEN HUNDRED DOLLARS.

DISPLAY OF GREENHOUSE PLANTS, IN POTS.

To be exhibited at the opening of the Hall, on the first Saturday in May:

PELARGONIUMS. —For the best six varieties, grown in pots,	\$8 00
For the second best,	6 00
For the third best,	4 00
ROSES. —For the best six varieties of Tea, Bourbon, Noisette, or Bengal, in pots, a prize of	6 00
For the second best,	4 00
For the third best,	2 00
CUT FLOWERS. —For the best display, a prize of	3 00
For the second best,	2 00
FUCHSIAS. —For the best six varieties, a prize of	6 00
For the second best,	4 00
CACTUS. —For the best six varieties, a prize of	3 00
For the second best,	2 00
CALCEOLARIAS. —For the best six varieties, a prize of	3 00
For the second best,	2 00
CINERARIAS. —For the best six varieties, a prize of	3 00
For the second best,	2 00
HEATHS. —For the best varieties, a prize of	3 00
For the second best,	2 00
GREENHOUSE PLANTS. —For the best display, of not less than ten pots, regard to be had to new and rare varieties, and well grown specimens, a prize of	15 00
For the second best,	12 00
For the third best,	10 00
For the fourth best,	8 00
For the fifth best,	5 00

HYACINTHS.—Prizes to be awarded second Saturday in May.

For the best display, not less than twenty varieties, . . .	\$5 00
For the second best,	3 00

TULIPS.—Prizes to be awarded the third Saturday in May.

For the best thirty distinct varieties, a prize of . . .	8 00
For the second best,	6 00
For the third best,	3 00

PANSIES.—Prizes to be awarded the fourth Saturday in May.

For the best twelve distinct varieties, a prize of . . .	4 00
For the second best,	3 00
For the third best,	2 00

HAWTHORNS.—Prizes to be awarded fourth Saturday in May.

For the best display, a prize of	3 00
For the second best,	2 00

HARDY AZALEAS.—Prizes to be awarded fourth Saturday in May.

For the best display, a prize of	5 00
For the second best,	3 00
For the third best,	2 00

SHRUBBY PÆONIES.—Prizes to be awarded fourth Saturday in May.

For the best six varieties, a prize of	5 00
For the second best,	4 00
For the third best,	3 00

HERBACEOUS PÆONIES.—Prizes to be awarded second Saturday in June.

For the best ten varieties, having regard to the number of varieties, a prize of	5 00
For the second best,	4 00
For the third best,	3 00

PINKS.—Prizes to be awarded third Saturday in June.

For the best six distinct varieties, a prize of	4 00
For the second best,	3 00
For the third best,	2 00

HARDY ROSES.—Prizes to be awarded third Saturday in June.**CLASS I.**

For the best thirty distinct varieties, a prize of . . .	8 00
For the second best,	6 00
For the third best,	4 00
For the fourth best,	3 00

CLASS II.

For the best twelve distinct varieties, a prize of . . .	5 00
For the second best,	3 00
For the third best,	2 00

CLASS III.**HARDY PERPETUAL ROSES.**—For the best ten varieties, a prize of

For the best ten varieties, a prize of	5 00
For the second best,	4 00
For the third best,	3 00

PRAIRIE ROSES. —For the best display, not less than six varieties,	\$5 00
For the second best, not less than four,	4 00
For the third best, not less than four,	3 00
CARNATIONS AND PICOTEE PINKS. —Prizes to be awarded third Saturday in July.	
For the best ten varieties, a prize of	5 00
For the second best,	4 00
For the third best,	3 00
HARDY RHODODENDRONS. —For the best display of the season, .	5 00
For the second best,	3 00
For the third best,	2 00
DOUBLE HOLLYHOCKS. —Prizes to be awarded 3d Saturday in July.	
For the best twelve varieties in spikes, a prize of	5 00
For the second best,	4 00
For the third best,	2 00
DOUBLE BALSAMS. —Prizes to be awarded 2d Saturday in August.	
For the best eight varieties in spikes, a prize of	3 00
For the second best,	2 00
For the third best,	1 00
PHLOXES. —Prizes to be awarded third Saturday in August.	
For the best ten distinct varieties, a prize of	6 00
For the second best,	4 00
For the third best,	3 00
GERMAN ASTERS. —Prizes to be awarded first Saturday in Sept.	
For the best ten varieties, not less than twenty-five flowers, .	4 00
For the second best,	3 00
For the third best,	2 00
DELPHINIUMS. —Best six varieties through the season, a prize of .	6 00
For the second best,	4 00
For the third best,	3 00

BOUQUETS, WREATHS, DESIGNS, &c.

Prizes to be awarded at the Annual Exhibition.

VASE BOUQUETS. —For the best pair suitable for the Bradlee Vases, a prize of the Bradlee Plate, valued at	10 00
For the second best,	6 00
For the best pair for the Society's Marble Vases,	10 00
For the second best,	6 00
PARLOR BOUQUETS. —For the best round, for parlors,	8 00
For the second best,	6 00
For the third best,	5 00
For the fourth best,	3 00
CUT FLOWERS. —For the best display and best kept through the exhibition, a prize of	8 00

For the second best,	\$6 00
For the third best,	4 00
POT PLANTS. —For the best display, of not less than twenty pots, a prize of	12 00
For the second best,	10 00
For the third best,	8 00
For the fourth best,	5 00
COCKSCOMBS. —For the best six pots, a prize of	3 00
For the second best,	2 00
BALSAMS. —For the best six pots, a prize of	3 00
For the second best,	2 00
DAHLIAS. —Prizes to be awarded fourth Saturday in September.	

DIVISION A.

Premier Prize. —For the best twelve dissimilar blooms, a prize of	8 00
Specimen Bloom. —For the best flower,	3 00
Various Colors. —For the best yellow, buff, or orange; purple or maroon; crimson or claret; very dark; white; edged or tipped; scarlet; pink or rose; striped lilac, a prize of \$1 00 each,	12 00

DIVISION B.—CLASS I.

For the best twenty-four dissimilar blooms,	7 00
For the second best,	5 00

CLASS II.

For the best eighteen dissimilar blooms,	6 00
For the second best,	4 00

CLASS III.

For the best twelve dissimilar blooms,	5 00
For the second best,	3 00
SUMMER PHLOXES. —Prizes to be awarded third Saturday in July.	
For the best ten distinct varieties, a prize of	6 00
For the second best,	4 00
For the third best,	3 00
HERBACEOUS PERENNIALS. —For the best display through the season, a prize of	8 00
For the second best,	6 00
For the third best,	4 00
ANNUALS. —For the best display through the season, a prize of	8 00
For the second best,	6 00
For the third best,	4 00
CAMELLIAS. —Prizes to be awarded second Saturday in January.	
For the best twelve varieties of cut flowers with foliage, a prize of	8 00
For the second best,	6 00
For the third best,	4 00

GREENHOUSE AZALEAS.—Prizes to be awarded second Saturday in March.

For the best six varieties in pots,	\$6 00
For the second best,	4 00
FLOWERING SHRUBS. —For the best display through the season, a prize of	8 00
For the second best,	6 00
For the third best,	4 00
BOUQUETS. —For the best display for the season,	5 00
For the second best,	3 00
Amount appropriated as Gratuities, to be awarded at the Weekly Exhibitions,	91 00

PRIZES FOR VEGETABLES.

AMOUNT APPROPRIATED, TWO HUNDRED AND FIFTY DOLLARS.

ASPARAGUS. —For the earliest and best, not less than three bunches, a prize of	\$3 00
For the second best,	2 00
BETS. —For the best (pure blood beet,) during the season, not less than twelve roots, a prize of	3 00
BROCCOLI. —For the best three heads, a prize of	5 00
BEANS. —For the best and earliest peck of string beans, a prize of	3 00
For the best and earliest Lima beans, not less than two quarts,	3 00
For the best and earliest variety of shell beans,	3 00
CABBAGE. —For the best Drumhead cabbage, during the season, not less than three heads, a prize of	5 00
For the second best,	3 00
For the best Savoy cabbage, during the season, not less than three heads, a prize of	3 00
For the second best,	2 00
CARROTS. —For the best exhibited, a prize of	2 00
CAULIFLOWERS. —For the best and largest, during the season, not less than three heads, a prize of	5 00
For the second best,	3 00
CELERY. —For the best and largest blanched, not less than six roots, a prize of	5 00
For the second best,	3 00
CORN. —For the best and earliest sweet corn, not less than twelve ears, a prize of	3 00
For the second best,	2 00
CUCUMBERS. —For the best pair under glass, previous to the first Saturday of June, a prize of	5 00
For the second best,	3 00
For the best and earliest of open culture,	3 00

EGG PLANTS. —The best display during the season, a prize of . . .	\$5 00
For the second best,	2 00
LETTUCE. —For the best six heads, before the first Saturday in July, a prize of	3 00
For the second best,	2 00
POTATOES. —For the best <i>new</i> seedling, of superior quality, for the table, a prize of	10 00
For the best and earliest peck, previous to August 1,	3 00
For the second best,	2 00
PEAS. —For the best and earliest peck in June, a prize of	3 00
RHUBARB. —For the largest and best, previous to the first Saturday in July, not less than twelve stalks, a prize of	5 00
For the second best,	3 00
SQUASHES. —For the best pure Canada squashes, not less than six in number, a prize of	3 00
For the greatest variety exhibited during the season,	5 00
TOMATOES. —For the best and earliest, not less than one dozen,	3 00
VEGETABLES. —For the best display and greatest variety at the weekly exhibitions, during the season,	5 00
For the second best,	3 00
For the best display and greatest variety at the annual exhibition,	10 00
For the second best,	8 00
For the third best,	6 00
For the fourth best,	4 00
For any new variety of vegetable suitable for the table, and worthy of cultivation, other than seedling potatoes,	5 00
<i>To be awarded at the Annual Exhibition.</i>	
MANMOTH SQUASH. —For the largest and best, the Society's Silver Medal,	
For the second best,	3 00
PUMPKINS. —For the largest and best, the Society's Silver Medal,	
For the second best,	3 00
For gratuities,	85 00
The Rules and Regulations are the same as last year.	

HORTICULTURAL OPERATIONS

FOR FEBRUARY.

FRUIT DEPARTMENT.

JANUARY has been an unusually mild and open month. The lowest range of the thermometer (up to the 26th) was 4° above zero; and, with this one exception, it ranged from 12° to 30°. Such mild weather has been favorable to forcing, and has saved much fuel and labor. There is little

or no frost in the ground, and should no very severe weather set in in February, vines in the greenhouse and grapery will start early and strong.

GRAPE VINES, in the earliest houses, will now be showing their buds, and will be in bloom by the middle of the month. The temperature should be raised gradually, and syringing continued till the buds are well advanced: discontinue, however, before the flowers open, and keep up the humidity of the house by damping the floors and walks in fine weather. Give sufficient air to prevent forcing the growth too rapidly. Disbud as soon as the buds are sufficiently forwarded to allow a selection of the shoots, and tie them to the trellis as they advance. Vines in the greenhouse and grapery will begin to move soon, and directly this is perceived, commence syringing. They will probably be well broken by the first of March. Air the cold houses as the season advances, in order that the temperature may not be raised too high, and prematurely start the buds. Vines in pots may now be brought into the house.

PEACH TREES, in pots, may now be brought into the greenhouse or vinery, where they will soon swell their buds and open their blossoms.

FIGS, in pots, may now be placed in a favorable situation in the greenhouse where they will begin to grow.

SCIONS of Fruit trees may still be cut, and preserved as we have before advised.

PRUNING orchards and fruit trees may be commenced this month. It will save valuable time where there is much pruning to do.

CUTTINGS of currants, gooseberries, quinces, &c., may now be prepared for setting out as soon as the ground can be got ready in April.

STRAWBERRY SEEDS saved last year, may now be planted in the greenhouse in pots or boxes.

FLOWER DEPARTMENT.

The continuance of favorable weather has been highly beneficial to all kinds of in-door plants; less fires have been required, and a greater abundance of fresh air admitted, which has prevented that drawn and etiolated appearance that they always have after a continuation of severe weather, requiring just the opposite management. All plants suffer greatly during such a long and cold winter as that of 1851 and '52. Epacrises, heaths, and all Cape and New Holland plants, are especially susceptible of injury; and the subsequent death or disease of many plants may be traced to their forced growth, caused by the strong fires and want of fresh air, to which they are often subjected in our cold winters.

The greenhouse will now be in its greatest beauty. Camellias and azaleas will now be in full bloom. Cinerarias, verbenas, monthly pinks, primulas, and similar soft-wooded plants, will be coming into flower. The house may now be rearranged, removing such as have done blooming, and bringing forward others in their places.

Prepare for all kinds of spring work. One or more hot beds, according to the wants of the place, should be immediately set to work, and all kinds

of seeds, wanted for early blooming in the open border, planted. Cuttings of bedding out plants may yet be got in, and everything done which will prevent the hurry in April and May.

PELARGONIUMS will now be objects of attention. All the specimen plants should have been potted before this; but if from any cause it has not been done, lose no time in attending to it. Tie out the shoots carefully as they advance, and thin out the weaker ones. Keep near the glass, in an airy place. Water carefully and syringe sparingly.

CAMELLIAS will continue in fine bloom all the month. Water freely, occasionally with liquid guano, and syringe as often as the scarcity of bloom will admit. Young plants, which need shifting may now be repotted. The larger ones may be done at the general potting in July. Inarching and grafting may be done now. Cuttings may be put in any time before the plants begin to grow. •

AZALEAS will now begin to bloom, and will require to have more liberal supplies of water.

CINERARIAS, now pushing up their flower stems, should be freely watered, using occasionally liquid guano; they will be greatly benefited by a weak application of the latter. Look after the green fly, and fumigate as soon as they appear.

FUCHSIAS will now begin to grow. Prune in the old plants pretty short, and put in cuttings of such new kinds as are wanted to increase the stock.

ROSES in the greenhouse will be in full bloom; as soon as they have done flowering, remove them to a frame. Cuttings may be put in now.

ACHIMENES and **GLOXINIAS**, started last month, will soon require potting.

PETUNIAS should now be shifted into their flowering pots, and the branches trained to handsome trellises.

HEATHS will require some attention. Repot all the plants that need it, and put in the cuttings for a young stock.

DAHLIAS, of such kinds as it is desirable to increase the stock, may be potted now, and brought forward in a cool part of the house.

CACTUSES will now require more attention. Tie up the plants neatly, and water rather more liberally than last month.

CUTTINGS of all kinds of summer blooming plants may be put in.

SEEDS of asters, globe amaranthus, verbenas, 10-week stocks, pansies, &c., should now be sown in pots, pans, or boxes, and placed on a shelf near the glass, or in hot beds.

VEGETABLE DEPARTMENT.

No time should now be lost in preparing hot beds for sowing seeds of all kinds of vegetables wanted for early use. Turn the manure well over, make up the bed, and place on the frame. As soon as the rank heat has exhausted itself, cover the surface with good loam, when it will be ready for the seeds.

TOMATOES, egg plants, celery, cabbages, lettuces, cucumbers, &c., should be planted immediately.

THE MAGAZINE OF HORTICULTURE.

MARCH, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *Notes and Descriptions of several varieties of Pears, exhibited during the year 1852 ; with some Remarks upon the peculiarities of the Season.* By the Hon. J. S. CABOT, President of the Mass. Hort. Soc.

THE following communication in reference to the past season, and some of its more noticeable horticultural products, is now, at the suggestion of its editor, submitted for publication in the Magazine of Horticulture, should it, in his opinion, tend to promote the objects of that periodical.

It is prefaced by a general account of the prevailing features of the past year, for a record of the more marked characteristics of each season is not wholly devoid of interest, or of useful results. Such may eventually help to throw light on some hidden fact or disputed point, and perhaps justify expectations of results similar to those of which these characteristics may have been before remotely the cause. This statement is however introduced on the present occasion chiefly for the purpose of affording an opportunity for such deductions therefrom, in relation to horticultural practice, as the experience of a single year will appear to justify.

The more distinct peculiarities of the past year were a very cold winter, a wet spring, followed by a dry summer, and a warm, fine, yet sufficiently wet autumn. The winter of 1851-2 was of unusual severity and duration, extending through six months, from October to April—its advent hav-

ing been preceded by a succession of very warm days. The first snow of the year fell during the last days of the former month, and at no time during the latter did the thermometer rise to 60°, an event that has not occurred before for 28 years; while, during the whole intermediate time, the weather was generally cold and inclement.

The December of 1851 was the coldest since that of 1835. Upon four different times during the month, viz., on the 17th, 18th, 26th and 27th, the mercury fell to 0, or below. January, 1852, was very cold, with but little clear weather; on three of its days, the thermometer indicated a degree of cold below 0; on one of these days, viz., on the 20th, of from 12 to 14 degrees, while on several other days in the month the mercury fell to nearly that point. On 15 out of the first 19 days of the month, snow fell; and for the whole month there was an unusually small number of clear bright days. The weather of February was more mild, and for much of the month pleasant and fine, yet still on three different times the mercury fell nearly, if not quite, to zero. For nearly the whole of December, January and February, the ground was well covered with snow; as evidence of this, the fact may be stated, that there were sixty successive days of sleighing.

The two first months of the spring were cold, wet, and disagreeable; while, as if to make amends, the last was warm and pleasant. In March and April, an uncommon quantity of rain and snow fell; but May was dry, so much so that, by the last of the month, the want of rain began to be seriously felt.

The summer of 1852 may be characterized as very dry; yet, with the exception of a series of very hot days at two different periods, not very warm. The drought was of long duration and wide extent, reaching, with its intensity occasionally alleviated, (especially on the seaboard,) by fine showers, from June to the latter days of August.

The autumn was fine, the weather warm and pleasant, with a sufficient supply of rain. So long delayed were the frosts, and so fine was this season of the year, that dahlias in gardens were not killed until October 17th, and the usual

out-of-door operations of horticulture could be pursued to almost the very close of the year.

Such were the more striking characteristics of the year that has just closed,—a year in some respects, especially in regard to some species of fruit, most propitious to the horticulturist and husbandman. The crop of apples and pears was most abundant, that of the latter fruit having been rarely equalled in quantity—or, more particularly with respect to its later autumn and winter varieties, surpassed in quality. The long summer drought had doubtless an unfavorable influence upon the size, if not the flavor, of summer and early autumn pears; but the latter rains were sufficiently timely to bring those of a later season to great perfection, and permitting, assisted by the aids derived from the science and practical skill of cultivators, in some instances, the attainment of a size never before equalled. Peaches, always uncertain, were a failure; cherries and plums did not surpass the average, and were far inferior in quality and quantity to that of the previous year.

An examination of the fruit buds of the pear, made very early in the season by some skilful and experienced pomologists, excited fears on their part of severe and general injury, as a consequence of the warmth of October, or the great cold of the winter, or perhaps of both combined, to the fruit buds of the year, if not to the trees. As such sinister forebodings were, as the event showed, groundless, no consideration as to the cause of an effect feared only and not produced, is required, further than that it furnishes an opportunity of venturing a doubt as to any injury being often caused to fruit buds or trees by the occurrence of a few warm or even hot days towards the close of the year. The trees then having recently begun their state of rest, are probably not as readily excited as when the period of their activity is about to commence, and perhaps it is more reasonable to anticipate beneficial effects as the result of such heat, by a better ripening of the wood, or preparation of the buds for the performance of their appropriate functions, than to indulge in prognostications of injurious consequences.

The experience of a single year scarcely warrants a decided

conclusion in regard to any subject, much less to one so obscure and affected by so many circumstances, as that of the best mode to be pursued in the cultivation of any particular species or varieties of plants. Still, the result of the past year, taken in connection with the facts of the great severity of the winter, the constant protection of the ground by snow, the abundance of pears, with the young trees apparently uninjured by the winter, seems to confirm what the past experience of some had taught them, the great importance, in most soils, of protecting the roots of pear trees by a covering of litter or straw. It is not probably the cold, unless more intense than is often experienced, that causes injury, but the alternations of heat and cold; it is the lifting of the trees by the freezing and thawing of the ground that is mainly to be feared and guarded against; and for this purpose a slight protection is sufficient. Cultivators of the pear tree are, it is believed, too often apt to overlook the effects of the winter upon the roots of the tree. When a tree in the spring and through the first part of the summer seems vigorous and healthy, but suddenly withers and dies, it is often ascribed to fire blight, or frozen sap blight, or some other such cause; when perhaps the true source of the disease is an injury to the roots in the preceding winter.

The great size, in some cases actually monstrous, of many pears at the different exhibitions of the Horticultural Society in the past year, was a matter of astonishment and admiration. In the absence of any particular knowledge as to the method pursued in producing such an unusual development, it may be suggested that it is the result of a severe thinning of the fruit, an abundant supply of nutriment, and frequent and copious waterings by irrigation or other artificial methods. When size of the fruit only is the object sought, water is probably the element most essential to success. Whether this great size of the fruit is consistent with richness and sweetness of flavor, and whether too it is not obtained at the cost of some part of its power in retarding fermentation, perhaps may be questioned. That fruit forced by artificial means to a most unnatural size—that, filled with water,

its saccharine matter diluted or dissipated, it should lose much of its richness and be more subject to fermentation and decay, seems but reasonable. If this is so, especially in late autumn and winter varieties, where resistance to decay is important, this great size seems too dearly purchased.

These extra large pears are certainly very attractive in appearance, and for the present, at least, are "the fashion." Of course, cultivators, in their wish to comply with the public taste, will endeavor to produce them; but if beauty, sweetness, and richness of flavor are true criteria of excellence, and this very great size is to be obtained but by the sacrifice of some portion of these traits, it seems probable that "the fashion" will not be of very permanent duration.

With the foregoing observations concerning the season, a brief account of some of its fruits, that, from rarity or other cause, seemed particularly noticeable, will be attempted. As such remarks are intended for novices and the general readers of the Magazine rather than experienced cultivators or scientific pomologists, they will be very general in character, the intention being to point out the qualities of the different varieties noticed, and not to enter into scientific descriptions. These observations embody the result of the experience—and that very short and limited—of a single individual, and the opinions expressed must in most cases be received as liable to be hereafter essentially modified, if not wholly changed; for a reliable judgment of a particular pear can only be formed after the proper manner of cultivating the tree and *ripening the fruit* is thoroughly understood. These descriptions will, in the main, refer to pears alone, as that fruit is at present an object of more especial interest than any others, and will not be confined to those which are new, but embrace such varieties also as, though not wholly new, have not yet become objects of general cultivation.

SOLDAT LABOREUR.—This pear was for a long time an object of interest with cultivators of this fruit, but all the earlier attempts made to procure it resulted in disappointment—the variety known here as the *Beurré d'Aremberg*, but that should perhaps be called the *Orphelin d'Enghein*, the name

under which it is cultivated most generally in France, having been sent out in its stead. What is however, without much doubt, the true variety, has been more recently received both from England and Belgium. It is a pear of above the medium size, with a thick rough skin of a yellow color, with reddish brown specks; the stem is of an inch or more in length; flesh yellowish white, half melting, juicy, of a sweet pleasant flavor, gritty about the core, and in some years cracks badly: it rots at the core. Season, November. The first notice of this pear, now remembered, was from Mr. Rivers, in 1843, who speaks of it as a new pear of Normandy, of high reputation, ripening in November and December. At present, it does not give promise of maintaining its credit in this country,—or, although some years good, of being worthy of a very general cultivation. In France, it seems to be esteemed of the first quality.

FONDANTE DE MILLOT is of a flattened, obovate form, with a yellow skin, red in the sun, and brown specks; calyx small and open; flesh yellowish white, half melting, not much juice; sweet, but without much flavor. November.

WREDDOW is a pear of pyriform shape; stem an inch long, curved, and set on one side; skin thick, of a russety, greenish color; calyx small and open; flesh white, melting, juicy, subacid, high flavored. Season, November.

CAEN DU FRANCE.—Large, pyriform, thick skin, of a russety yellow color, thickly covered with russety specks, and with some blotches of russet; calyx open; flesh yellowish white, half melting, juicy, sweet, with a little astringency; stem thick, three quarters of an inch long. Ripens in December and January—adheres well to the tree. This is supposed to be the same as No. 61 of Van Mons, and may prove worthy of a place in a large collection.

HERICART DE THURY.—Small, with a thick green skin and russet specks, and a slight blush in the sun; flesh tender, half melting, and not much juice, of a peculiar flavor, and indifferent quality. Dec. and Jan. The Hericart de Thury is described in the French catalogues as large, melting, and of first quality. As the fruit, of which the above is a descrip-

tion, was from an imported tree in its first year of bearing, it may be that it had not arrived at perfection, or that it was not true to its name.

INCONNUE VAN MONS is of medium size, pyriform shape, with a curved stem, of an inch in length, set rather on one side, with a thick green skin and dark green specks; flesh white, juicy, melting or half melting, of a pleasant, rather sweet flavor. The tree is of an upright habit, and promises to be worthy of cultivation.

DELICES D'HARDENPONT.—There appears to be two distinct pears cultivated under this name in Europe, distinguished, as is supposed, by the addition to one, of d'Angers, and sometimes to the other, of de Belgique. The *Delices d'Hardenpont*, as supposed, d'Angers, received from M. Jamin, is of nearly a round form, with a rather stout stem, of three quarters of an inch in length, set in a slight cavity, is of a yellow russet color, with darker russet specks and darker russet at the calyx; flesh yellowish white, tender, juicy, half melting, of a very pleasant, rather subacid flavor, and ripens in Nov. and Dec. *Delices d'Hardenpont*, as presumed, de Belgique, received from Mr. Rivers, is a pear of large size, flattened, oblong form, with little or no depression at the calyx; stem short, thick, on one side, with a shoulder; is of a yellow color, with some blotches of russet; flesh white, juicy, melting, of a pleasant sweet, though not high flavor; little gritty at the core. Season, November. Both of these varieties promise well, particularly the last, which, as it corresponds in general with a specimen sent to the Horticultural Society by M. Leroy, in 1851, is supposed to be correct.

BEURRE' AUBUSSON, of a turbinate form, with a straight stem of an inch in length; yellow, smooth skin, with greenish specks; flesh white, dry, breaking; only fit for baking, if for that. December.

JOSEPHINE OF MALINES.—An irregular-shaped pear, with a stout stem, of an inch in length, set on one side, and a thick skin of a greenish yellow color; flesh yellowish white, juicy, and melting. Dec. This is a pear of high reputation in Europe; and as it has been represented by some cultivators in

this country as a fine fruit, an unwillingness is felt to express an opinion at this time counter to what seems to be the prevailing sentiment, particularly as such opinion has no foundation beyond the experience of that of a single individual; yet circumstances seem to require the statement of the fact, that, in the case of such individual, the pears of this variety have, for the last two years, been of a very indifferent quality, defaced with black spots or blotches on the skin.

SUZETTE DE BAVAY proves to be of medium size, of an almost round form, coming up on one side to the stem, with a shoulder; stem short, set on one side in rather a deep cavity, somewhat folded around the calyx, which is open, in a very slight depression; is of a yellow color, with reddish brown specks; flesh white, very juicy, half melting, high flavored and sweet. January, but said to keep much later. Promises well.

DOCTEUR CAPRON.—A new pear, that, judging from specimens of the first year of bearing, promises well. It has a thick skin, of a greenish yellow color, covered with blotches of russet, red in the sun, russet specks, calyx closed; flesh yellowish white, melting, of a pleasant, rather spirited flavor. Last of Oct. and Nov.

NEW LONG ROSEWATER.—Smooth green skin, with dark specks; calyx open; stem short, rather curved; flesh white, juicy, tender, half melting, of a very pleasant sweet, perfumed but not high flavor. Nov. and Dec. The true name of this pear is not known; it was received many years since by Mr. Prince, under the name of Caillot Rosat, and the name under which it is now known was given it by Mr. P.; yet so far as the quality of the fruit is concerned, it appears well worthy of an extended cultivation—the only drawback to which is the circumstance that the tree is a poor grower. It comes in at a season when we have but few good pears. Although not a new fruit, it seems to be in no collection near Boston, except in that of Mr. Vandyne, of Cambridge, who every year exhibits fine specimens of it in considerable quantities.

POIRE HIS.—An irregular shaped pear of medium size, with a rather stout, long, curved stem; of a russet color, with dark

specks; flesh greenish white, melting, very juicy, sweet, but rather wanting in flavor, and with some astringency about the skin. Nov. Bore for the first time the past year. Tree appears to be very prolific.

LOUISE D'ORLEANS.—The hopes and expectations of cultivators have been greatly excited about this pear, in consequence of representations from Europe of its great merit, it having been decided, it was said, by Col. Van Mons, to be the best pear ever produced by his father, and dedicated, by permission, to the Queen of Belgium. The seed from which it originated, it was further said, was planted in 1827, and it bore fruit in 1843. It was described as resembling, in size and form, the *Bonne des Zees*. Stem about an inch long, set in a slight hollow; eye small, almost on a level with the fruit, preserving the divisions of the calyx, and those short, narrow, and slightly prominent; skin of a beautiful bronze green; flesh very fine, white, melting, with a superfine sugary juice, that caused this pear to be ranked among the noblest of its kind: ripening in Oct. and Nov. This fervid description naturally excited the desires of amateurs and cultivators for its possession, and trees obtained from different sources fruited the past year in several collections. The trees of this variety, to which the following remarks particularly refer, were received from M. Louis Van Houtte, in 1845. It so happened that M. V. H., on that occasion, sent out two distinct varieties under this name,—one being a very strong growing, upright tree, with large, thick, deep green foliage; the other, a tree of more feeble growth, with a narrow leaf of a lighter green color. Trees of both these varieties fruited the past year; those of the first mentioned, bore a pear under the medium size, of a yellow color, with a white, rather coarse, half melting flesh, and in no respect answering the European representations of the *Louise d'Orleans*; while those of the last, bore fruit greatly resembling, if not identical with, the *Urbaniste*,—and being the same with the fruit produced by trees in other collections, imported from different European nurseries, it is probably the true variety to which the above glowing description of the *Louise d'Orleans* was

intended to apply. It would not be proper, perhaps, to deny, at this early day, that the Louise d'Orleans is a distinct variety, though the description given of it will generally answer for the Urbaniste; and M. Leroy, in the Supplement to his Catalogue of 1852, "supposes it to be the same as the Urbaniste," because it is difficult to conceive that Col. Van Mons could be so mistaken; and also that some of the particulars above related are entirely inconsistent with the supposition that it is identical with that variety. Yet still, if the true variety has been received, it may safely be said that, judging from our present experience, it is extremely difficult, from either the appearance of the tree or fruit, to separate them into two distinct sorts.

BERGAMOT LESEBLE is a good pear, of a yellowish green color, with brown specks, and slight blush in the sun; flesh white, tender, juicy, half melting, sweet, and high flavored. Ripens Sept. and Oct.

TEA PEAR, from New Haven; is of medium size, obovate form, with a short thick stem set on one side, of a greenish yellow color, brown specks with blotches, and spots of red in the sun; flesh white, melting, very juicy, of a very pleasant subacid flavor. October. Promises, particularly as it is of native origin, to be worthy of an extended cultivation.

BEURRE' CLAIRGEAU.—So far as an opinion, formed by testing one or two specimens and those from imported trees of the first year of bearing, is justifiable, this pear promises to be, on account of its size, beauty, and quality, a highly valuable acquisition. It is a new pear, raised from seed by M. Clairgeau, at Nantes, of a yellow russet color, with darker russet specks, and a little red in the sun; very large, with a short, very thick stem; calyx small and open; flesh yellowish white, tender, half melting, of a very pleasant subacid flavor, ripening last of October and November; tree a strong grower, wood stout, and appears to come early into bearing.

POIRE D'ALBRET is also a fine pear, of a yellow russet color and dark russet specks, with a thick stem of an inch in length, the flesh running up on the stem; flesh white, very melting, juicy, of a rich, subacid, Brown Beurré flavor, ripening in October.

BEURRE' STERCKMAN.—A pear of medium size, obovate form, of a light or greenish russet color, with dark specks; flesh white, melting, juicy, of a very pleasant subacid flavor; shows some disposition to rot at the core. Oct. The season of this pear, in the catalogues of some European nurserymen, is said to be January and February; but as trees received from different sources, for those of this variety, prove to be the same, of all of which, so far as is known, the fruit ripens in October, this statement of its season is probably erroneous.

WATERLOO.—A pear of large size, with a light yellowish green skin, and green specks, with some blotches of a darker green; flesh white, melting, juicy and sweet, rather lacking in flavor. Season, October. This may be the same as *Excellentissima*.

WELLINGTON.—Rather above the medium size, of a rounded obovate form, of a light yellow color, with brown specks, russet at calyx; flesh white, juicy, half melting, of a pleasant, slightly subacid flavor. Season, October. Rots at core.

GRAND SOLIEL.—A very fine new pear, from M. Esperin; it is of a medium size, of a turbinate or rounded turbinate form, with a stem of three quarters of an inch in length; of a yellowish color, with russet specks and some blotches of light russet; calyx closed; flesh greenish white, fine grained, very juicy, half melting, of a very pleasant flavor, somewhat resembling that of the St. Michael. Oct. In the descriptive catalogues of some European nurserymen, the season of this pear is put down as from December to March; but for the same reasons as those which apply to the *Beurré Sterckman*, this is supposed to be a mistake.

PRINCESS MARIANNE.—A rather small pear of a russety color, with red specks, and slightly red in the sun; flesh white, tender, half melting but juicy, and of a pleasant subacid flavor. Season, October.

MONS. BOSNELLE.—A rather small, round pear, with a long stem, green, covered with brown specks; calyx large and open; flesh white, melting, juicy, sweet; rots at core. Oct.

NOUVEAU POITEAU.—An experience of three years confirms the opinion heretofore expressed of the value of this pear,

and its adaptation to a general and extensive cultivation. A repetition, at this time, of the description heretofore given, is not now supposed necessary. It may not be amiss, however, to say that the specimens of the past year, without any particular care or cultivation, were of great size and beauty, and excellent in quality. Its season, November, is one when there is a scarcity of good pears, and the tree is so thrifty and vigorous a grower that it is worth propagating for the purpose of reworking, even if the fruit should disappoint expectation.

DANA'S SEEDLING PEARS.—Mr. Francis Dana, of Roxbury, has, within the last year or two, exhibited several new seedling pears, some of which seem to be of great promise. As none of them have yet been disseminated by Mr. D., the only opportunity of forming an opinion of their value has been afforded by an examination of a few specimens: among such were the following:—

DANA'S SEEDLING No. 1.—A pear of large, or above a medium size, of a pyriform shape, with a stem of about an inch in length set on one side, of a light yellow color, with brown specks; calyx large and open; flesh white, rather coarse grained, but juicy, melting, and of a pleasant, slightly sub-acid flavor. Season, Oct. and Nov.

DANA'S SEEDLING No. 16.—Of a regular obovate form, with a stem of an inch in length, slightly curved; smooth, thin skin, of a russet yellow color, with russet specks; calyx open, rather large; flesh white, juicy, half melting, of a pleasant, very sweet flavor. Season, Oct. and Nov.

BEURRE' SEUTIN.—Several entirely distinct varieties have been received from Europe under this name; which, if either, is the true kind, no means of deciding is possessed. The one now referred to, is a pear of above a medium size, of an irregular pyriform shape, of a green color, turning to a light yellow; flesh solid, not becoming mellow, rather dry; answers for cooking, for which purpose, as the tree seems a good bearer and the flesh adheres very firmly to the tree, besides keeping sound through the winter, it may prove a valuable variety. This same pear has been imported under the name of *Leon le Clerc*.

BEURRE' MEROD proves to be the Doyenné Boussock. According to M. A. Papeleu, the true name of this pear is the Double Philippe; and the other two, above given, are synonyms. [Our Beurré Merod. is new and distinct. See page 40.—Ed.]

ST. NICHOLAS is identical with the Duchesse d'Orleans.

HENRI NICAISE, from M. Van Houtte, is the Bartlett. The Henri Nicaise is stated, in the catalogue of M. V. H., to be a winter pear, and the Bartlett was doubtless sent through mistake.

BEURRE' DE MONTGERON.—A very handsome fruit of good quality, resembling, in form and appearance, the Frederick de Wurtemberg; it is, however, more uniformly of good quality than the pear commonly known under the latter name. This same pear has been received under the name of the Belle et grande de Montrouge, and also of Frederick de Wurtemberg. The true name, however, is said to be the Rousselet Royal, of which Beurré de Montgeron and Frederick de Wurtemberg are synonyms. The tree is of handsome, upright growth, and it promises, both on account of the beauty and good quality of the fruit, to be worthy of cultivation.

Observations of a character similar to the foregoing might be made concerning other new or little known pears, but as opinions of such, until after a longer experience, would be but little to be relied upon, and as these remarks have been already sufficiently extended, they are reserved for a subsequent occasion. But before concluding this communication, the present opportunity will be made use of, to call the attention of cultivators to a new Seedling Grape, raised by Mr. A. W. Stetson, of Braintree.

A. W. STETSON'S SEEDLING GRAPE No. 4.—Mr. Stetson, a most enthusiastic and skilful cultivator of the vine, has devoted much of his attention to the production, from seed, of a new hardy grape, worthy of, and suited to, general cultivation—one that, combining richness of flavor and other good qualities with that of a reasonable assurance of ripening in the open air, having been considered by cultivators of this fruit a desideratum. Thus far, Mr. S., judging from specimens of

that designated above as No. 4, seems to have been successful in the attainment of his object, and it gives promise, if attempts similar to those heretofore made by him are continued, of a result that shall be the full fruition of his wishes. This grape is understood to be an offspring, in the third generation of seed, of the common wild grape hybridized with the Black Hamburg and other imported varieties, and it seems highly probable that the fruit of the next generation may possess all the qualities desired, should the experiments of Mr. S. be thus farther pursued. This grape is of a dark purple or black color, with both bunches and berries of good size, very sweet, in flavor resembling the Isabella, and in quality equalling if not surpassing that variety. The vine is very hardy and very prolific; the fruit hangs long on the vine without shrivelling, having been thus kept perfectly plump and fine as late as Nov. 25th. This grape was exhibited by Mr. Stetson at the Rooms of the Horticultural Society, on the 4th and 11th of September, and also at the annual exhibition of the Society on the 25th of that month, and, as it is believed, is one that may with safety be recommended, to both amateurs and cultivators of this fruit, as an object worthy of attention.

Salem, Feb., 1853.

ART. II. *The Cultivation of the Pear.* In a series of Conversational Meetings by the members of the **MASS. HORT. SOCIETY.**

THE President of the Massachusetts Horticultural Society, in his annual address, recommended, as a means of furthering the objects which the Society was established to promote, the propriety of holding occasional meetings for the discussion of various subjects of interest to the members; and in accordance with such advice, the first meeting was held in the Library, on Saturday, the 15th of January,—the subject, the Cultivation of the Pear.

Mr. Richards, Vice President, was called to the chair, and the President was called upon to open the meeting.

THE PRESIDENT. Mr. Cabot said he did not expect, when he proposed these discussions, to be called upon to speak, but rather wished to be a listener to what was said. He had given his principal attention to proving new varieties of the pear, rather than cultivating them in the best manner; but he intended to do so if he lived.

As to locations for the pear orchard, he thought a rather sheltered situation best—sloping to the south, with a rich, deep, and rather stiff soil, inclining to clay: his own was almost a brick-clay soil, and the trees grew finely. The proper distance for trees on the quince, he thought, was twelve feet apart.

As to manuring, he had not tried many experiments; he had used guano, but not in sufficient quantity to give any decisive opinion as to its results. He would prune only with the knife, taking out only crowded limbs and shortening in the over vigorous ones. He preferred fall transplanting; he thought spring planting was injurious from the cause that our springs came forward very rapidly, and the supply of sap was not sufficient to make up for the rapid evaporation of the leaves; while in fall planting, the ground became settled, and the roots ready to strike into the ground the moment the frost disappeared in spring.

MR. BRECK said he had not much experience, but so far as his practice extended, he could endorse all the President's views. He did not think trees should be so much pruned as they generally are, but rather let alone, allowing the branches to spread out to the ground. He thought rather close planting best, so that one tree sheltered the other. Deep soil was absolutely necessary to raise good pears; a trenched soil, without manure, he thought better than a shallow soil with it. He had used bones and sulphuric acid as an experiment; thought it very good for pears, though he had made no comparison of it with other kinds—he had used guano in connection with the bones, and with good results.

Some gentlemen inquired of Mr. Breck the mode in which he prepared the bones.

Mr. Breck stated that he mixed them with ashes, and applied two or three quarts to each tree. He had scattered it in the trenches when transplanted trees had been set out in nursery rows, and had found that trees set out in spring were full of fibrous roots in the fall, and many of them attached to the particles of bones. His mode of preparing was as follows:—

Five barrels of fine bones, the refuse of comb factories, were used to a carboy of sulphuric acid, say 175 lbs. The bones were turned out upon the ground and well moistened with water; they were then heaped into a cone, and a basin made in the top; into this basin the sulphuric acid was poured, diluted with one half of water. The heap was well stirred up with a long pole; it effervesced, boiled up, and became very hot: more diluted acid was added, and the whole left in a conical heap. In a day or two it was opened, and found to be a kind of paste; to apply this readily, it was mixed with dry ashes and sand, in sufficient quantity to render it convenient for use.

To a question, Mr. Breck said the cost of the bones was \$10, and the acid, \$5.

Here a general discussion ensued between Messrs. Breck, C. M. Hovey, and other members, relative to the value of lime for the pear: but it seemed from the facts elicited that no apparent benefit had resulted from its use.

Mr. FRENCH said that he was surprised to see what results had been obtained from the growth of the pear on light soils. Some years since, he was in Plymouth, Mass., and could not but be surprised at what he there saw. Where the soil is of a light drift sand like that at Plymouth, or of the nature of that on Cape Cod, at New Bedford, and Marblehead, the trees flourish exceedingly well, and very fine fruit was obtained.*

A year or two ago, he was at Troy, N. Y., and, by the kind invitation of Mr. Vail, visited his garden. He was surprised to see such fine fruit and thrifty trees: asked him how he suc-

* This would rather seem to militate against the views of the late Mr. Downing, who said the pear could not be raised on the light sandy soils on the sea shore.—Ea.

ceeded so well; some old and familiar pears were so large that he could scarcely recognize them. Mr. Vail asked him to look into the garden and see. He did so. He took the walking-stick of a friend, and, at the suggestion of Mr. Vail, ran it into the soil five feet! His wonder then ceased. He found it was wholly owing to a naturally good soil, trenched and manured five feet deep. He always recommended trenching, to raise fine pears.

MR. STICKNEY commenced the culture of the pear, in his present garden, in 1845. Turned the soil once, subsoiled and manured; in the spring, set out three hundred trees. The next spring, set out three hundred more; and in 1847, another three hundred. Subsoiled among them every year, and well manured and cropped the ground up to 1852. His land was quite sloping to the south, and he ploughed east and west, to prevent the soil from washing down into Charles River. Situation sheltered on the east, west and north. But he found that, in his attempts to stop the wash of the soil, he did more injury to the trees than the value of the soil which might be lost: the water lodged, and the bottom being retentive, he lost some trees. Next year, he ploughed north and south towards the river; he immediately perceived the benefit of this, and has since done so. The trees are about eight feet apart, and in the fall he ploughed the soil towards the trees so as to leave a deep furrow: in the spring it was ploughed back again to fill the furrow up.

Last year (1852) he made ditches three feet deep and thirty-two feet apart, and laid tile drains; filled the cavity with charcoal and corn-stalks; gave a good heavy coat of barnyard manure in the fall.

The great thing, the foundation of all good cultivation, was to get good trees,—healthy, and such as will grow freely on the quince, if that stock is used: only a limited number of kinds he had found to grow freely upon it. Unless, therefore, the right sorts are selected, the cultivator toils and labors and produces nothing. It was heart-sickening to attempt to raise trees from pears grown on suckers or poor stocks. Here was the great failure with many who had attempted to grow

pears. They had purchased their trees at *auction*, or procured such as were bark bound, stunted, or diseased, and then wondered why their trees did not grow and bear. If good healthy trees were selected, there would be few complaints of this kind. Persons who would buy poor trees, had no one to find fault with but themselves.

Mr. Stickney had found mulching very valuable, and of great advantage; he had used coarse strawy litter, *pretty well soaked with the drippings of the stable*. He had used bone black, from the sugar refiners, as a top dressing, and had found it beneficial; but it should be used very cautiously, and allowed to lie a long time exposed to the air before applying it to the trees.

Mr. Stickney's remarks were full of sound advice, and we regret that our report is so meagre an account of what he said.

Second Session. Saturday, January 29.

THE PRESIDENT. Some remarks have been called for in regard to heading in pear trees. So far as his experience was concerned, he thought it best to head in. Trees newly set should be headed in, say one half to two thirds the previous year's growth. Trees set out in the streets of Paris, he was told, were headed in to nearly bare poles.

MR. BRECK said he had remarked that trees headed in had done better than those not pruned. He had noticed this in street trees, where they had been pruned to bare poles and had done well. Pear trees might do better in light soil, such as Mr. French had alluded to at Plymouth, than in a heavier one; but he thought some persons might make a mistake, if they should plant their trees in any sandy soil without knowing of what it is composed. It would not answer in all light soils.

MR. C. M. HOVER objected to the general system of heading in trees indiscriminately, as was a common practice, without regard to the state of the roots and other conditions of the tree, and should take occasion to enlarge upon the subject, if gentlemen contended that the practice should apply to all transplanted trees.

In the discussions now before the members, he presumed we were assuming that we were talking to practical men, or, at least, to gentlemen who had some information upon the subject; and that we also assumed that the system he or any one else advocated, was that which should be pursued with a healthy, properly grown tree. This being understood, he was entirely opposed to heading in newly transplanted trees. He had not done so for many years, and, after careful observation, he had become convinced that trees removed and not headed in the *same year*, had done far better than those that were.

His practice was to transplant trees in the fall, if possible; but if not then, in spring, rather than lose a year. Such trees were not shortened in, unless merely some straggling branch, to shape the tree a little. The following year, however, they were cut in rather short. This gave the young shoots a vigorous start, and the trees formed fine heads, much better than those pruned in the first year.

If, however, trees had been imported, or out of the ground many weeks, these, of course, he would head in to keep up the equilibrium between the roots and branches; the former evidently being more or less injured by drought, exposure, decay, or other causes, not to mention the loss of many of them by removal, which would materially change their natural condition. He therefore, as a *general rule*, always advised shortening in *one third* or *one half* of the previous year's wood, for the reason, as a *general thing*, trees were badly cut or mangled in removal and transportation. He condemned the plan of heading in forest trees to bare poles, as generally practised.

MR. CABOT said he agreed with Mr. Hovey, that young trees taken from the nursery did not perhaps require cutting in so severely as older ones. In the removal of large trees, he thought it was necessary to shorten in, to keep up the equilibrium between the branches and the roots. He took up two very large pear trees last year, and did not shorten them in; but he found they did poorly,—one died, the other did pretty well. His experience was that large trees required considerable heading in.

MR. WALKER. Some remarks had been made relative to heading in forest trees; he should confine his to the pear. He had removed many trees; he had taken them up in April or May and cut them in,—and had taken up others and not headed them in; those not pruned were much the best trees the end of the second year. His opinion was that a good tree *should not* be pruned the *first* year. It then had time to recover itself; and properly headed in the second spring, it made vigorous branches and a good top. Imported trees he thought it would be best to prune when set out. He quite agreed with Mr. Hovey; his whole experience quite concurred with his.

MR. STRONG wished to ask if stunted trees were injured by cutting open the bark,—that is, scoring them. He had a lot of about four hundred, part of which he scored, and the others he did not; those not cut he thought looked much the best now.

MR. HOVEY wished to ask the reason why trees were scored. It was his rule never to do anything without a reason for it. He had never seen a satisfactory one why trees should be scored.

MR. WALKER did not think trees were benefited by cutting open the bark; he should just as soon think of scoring the skin of his children to regain their health, if sick, as scoring the bark of trees to invigorate their growth. His practice was, when trees were stunted or bark bound, to head them back,—say in May; they will then throw out one or more young shoots or suckers, which will often grow, from just above the graft, as high as the old tree in a season: all these he allowed to remain and grow till midsummer of the second year, when he cut off the old stock close to the sucker, which invariably formed a handsome tree.

The question was asked, why the sucker should grow so much better than the old tree, when the latter had more leaves? His opinion was that the sap vessels were small, and did not permit the flow of sap, while the young shoot was full of vigor,—just as the blood in youth was always more vigorous in its flow than in age.

Great errors were committed in grafting trees ; some persons took off the whole top of a large tree, and then large quantities of suckers are thrown out below the graft : many of his friends had cut them off as often as they appeared ; the consequence was that the grafts failed or the trees died. Thus, he said, it would always be ; for if you continue to bleed trees every week they cannot live.

MR. STICKNEY concurred most heartily in all Mr. Walker's views. He said he was now removing large trees with balls of earth ; his intention was to prune last year, and he would ask if it was not better to cut them in some this year.

MR. WALKER said trees of a moderate size should be let alone ; buds he looked upon as so many little valves, and although there was so many of them that they might draw off the sap too readily, still he thought it best not to destroy them. No roots can be formed on any tree unless there is some growth made ; at least so he thought,—and gentlemen would correct him if in error. The second year he should head in perhaps one half ; the trees would then make new and vigorous shoots.

MR. CABOT approved of cutting in newly transplanted trees. It was true, if the roots were all preserved in taking up, it would not be necessary ; but if not, they should be headed in to keep up the equality between the roots and branches.

MR. C. M. HOVEY replied at some length, and discussed the action of the sap, the functions of the roots, leaves, &c. He maintained that no tree properly taken up, and its roots preserved, should be pruned in the first year ; but, as he had before remarked, so much carelessness was there in this operation, that his rule would not apply in all cases. The tree was then to be considered an injured one, and to be treated accordingly ; the bruised roots were to be cut smooth, and the branches more or less pruned. Nature always adapted the roots to the wants of the branches ; and unless their condition was much changed, no mutilation of the latter was necessary. The great error appeared to be that a rapid growth must be made the first year. Cultivators were so impatient that they could not wait for the tree to make its

roots, and then its branches afterwards ; both must be made at once ; and the consequence was that the former must suffer at the expense of the latter. Let the roots get firm hold of the soil, then head in, and a top worth having is secured.

MR. STRONG thought as there was a difference in the views of pear cultivators as regards transplanting and heading in, he thought they might be reconciled by the difference of seasons. In damp years trees would do without cutting, but in dry ones they should be pruned.

MR. WALKER looked upon a transplanted tree as upon a sick animal. When the tree is taken out of the ground it is injured ; in one season it recovers itself by means of its buds and leaves ; all the leaves being in action, the roots are made, and the tree is reëstablished,—that is, the stomach is at work ; and then, the next year, if it was headed in, it regained its original vigor and strength.

Adjourned to February 5th.

ART. III. *The Cultivation of the Grape Vine.* By A. JOHNSTON, Jr., Wiscasset, Me.

DEAR SIR:—I have read, with much gratification, the paper on the Culture of the Isabella Grape by William Gore, of Freeport, Me., in your February No. of the Magazine, and I am rejoiced to learn that *I am not alone* in the determination to produce this admirable fruit, annually, in quantity and quality fully equal to the *best* specimens of any other State. I tried hard to find the time, during commencement week at Brunswick, to visit Mr. Gore at Freeport, by invitation of our mutual friend Rev. E. G. Parsons, but without success. I shall take an early opportunity so to do the coming season, for I do think that there is nothing in the way to the general cultivation of this prolific vine all over New England, if those who know will only try.

Mr. Gore's method and my own, exactly correspond in all but two items, viz., *weeding* and *summer pruning*, or *pinch-*

ing. I do not *weed*, because my vines are large, trained upright, twenty-four feet high by twelve feet wide, and it is difficult to climb about on the trellis without doing much mischief to the young and tender fruit shoots; beside, a continued hum of business will never allow me the time. It is a capital idea, though, and I fully endorse, and approve of, the "weeding."

As regards "summer pruning," or pinching, I must adhere at present to my own practice, which consists only in pinching off the fruit-bearing shoot at the third joint (or fourth, or fifth) beyond the fruit, but *never any nearer*. I will explain. Let the fruit appear and grow to the size of common shot. If three bunches appear on a shoot, I cut out one certain, and *two*, if they are not well set and destined to grow to good size. Then, when the grapes get as large as peas, I pinch off the shoot, never any nearer the outermost bunch than *three joints distant*. About ten days afterward, you will notice that the buds, beginning with the outermost one, are breaking to grow. Very well, *let them grow*. They will not exceed sixteen inches in length; if they do, then pinch them *at the tips*. You will have then a fruit-bearing branch, with its two bunches of grapes, and two or three little side shoots growing outside the grapes. At the same time a new branch is growing at the foot of the fruit branch, to bear fruit the next year; the current year's fruit branch being cut out altogether in the November pruning. Into this *next year's* fruit branch, (*spur*, after it is pruned,) I wish to throw *all* the spare force of the vine, and I believe that the present fruit branch, with its three little shoots, like a little bush, will be amply nourished thereby, with its fruit.

Should I suffer the fruit branches to grow from "five to twelve feet" beyond the fruit, my vines, as they are trained upright, with seven canes twenty-two inches apart, would become a wilderness of foliage, four or five feet thick! Let us calculate. On one of my canes, 24 feet long, there are 50 fruit branches, or two to a foot. On the seven canes, then, would be 350 fruit branches. Now if each of these were suffered to grow, say six feet, beyond where I generally

stop them, then the whole growth would be 2100 feet, to be cut off eventually, and lost! As my vines are managed, the whole amount of the annual pruning could be put into a bit of stove pipe twenty inches long and five inches diameter, and shut up out of sight!

I can hardly assent to the proposition "to let them grow till September." Mr. Gore must have trained his vine very different from mine, (horizontally, perhaps,) or he could not have room for this great growth, and still ripen his fruit. All his suggestions, though, are very valuable, and I rejoice indeed that at length I am not alone in systematic experiment with this excellent fruit.

All the other points of Mr. Gore's culture I have ever recommended and followed, except these two; the "weeding" is *first rate*, and I will do so this year; the "summer pruning" I fear to adopt, for reasons above given. The "spur pruning" system I have always followed; also "protecting the vine in the winter with a *light* covering of boughs;" also my vines are "kept down on the ground," and not put up on the trellis till May 25th. I "water and syringe" my vines frequently, and "mulch" *all the season through*, with old spent tan, some four inches thick. (See Mag. Hort., Vols. XVI, p. 548, and XVII, p. 118.)

I regret that Mr. Gore gave no account of the weight or measure of his crop, or the number of the bunches. Perhaps in a future number of your Magazine I shall have the pleasure to see a statement of his crop and all the items. These statements do great good. The experience of a sensible man is worth an ocean of "theory," where thousands get swamped before one is ready to graduate. I send you a sketch of my large vine, on its trellis, ready to grow in 1853. It always looks smart and tidy. [This will appear in our next No.]

MEMORANDA. OLD VINE.

1845.—Vine planted Nov. 10th: two years old at the time.

1846.—Vine browsed by a calf in summer; a few straggling bunches *aid* themselves and ripened first rate; fruit and bunches small.

1847.—Vine grew strong and robust. Fruit all pinched off to favor the vine.

1848.—100 bunches set; 25 only allowed to grow. Prematurely gathered September 25th, but proved acid and "foxy;" well turned, but *not ripe*.

1849.—200 bunches set; 75 left to grow. Noble fruit and ripened finely. Gathered October 15th.

1850.—400 or more set; 225 grew, and ripened admirably. Gathered October 8th, 20th and 28th; the last the *very best*.

1851.—500 bunches set; 411 grew; 165 pounds ripened nicely, though *not so large* as formerly; very sweet and good. Vine hurt by this large crop *decidedly*. Gathered October 23d, 25th, 27th; the last the best, as usual. Pruned snug, and carefully laid down in December. Have to use great care in bending the canes, as they are very stout.

1852.—425 bunches appeared; 322 grew. Still too heavy a crop; ripened lazily, but very well at last. Season very bad, cold, wet and windy. Gathered October 15th, 21st, 25th; the last the best, of course. This vine shall rest another year on 200 bunches. The trimmings indicate "too much pork for a shillin."

Total, 1061 bunches in 5 years, or 425 lbs.

I began Grape culture ignorant of the whole business. Please inspect record of a vine with more done for it.

MEMORANDA. ARBOR VINE.

1849.—Rooted layer, two years old, planted in May. Grew off nicely with six arms, or canes, all diverging from the root. Find I can handle them better in this form; they are more flexible, and less liable to split and twist. No fruit, of course.

1850.—50 bunches set; 20 only grew. Ripened first rate. Gathered October 20th, 28th. Very large and rich; better flavored than any I ever tasted.

1851.—200 bunches set; 125 grew. Exceedingly fine, large in bunch and berry, and ripened in most perfect manner. Gathered October 27th.

1852.—500 bunches appeared; 400 grew, (because I was

too busy to attend to them,) and the bulk of the crop ripened well; some 50 bunches being slightly reddish, or having reddish berries intermixed. One half were gathered October 18th and 21st, and the other half were *frozen stiff as bullets*, night of October 25th, thermometer 16°. These were immediately gathered, scalded, and the clear juice turned into "currant shrub," with sugar, and bottled, (Liquor Law notwithstanding.) This vine grows up straight 10 feet, and then bends on a frame over my kitchen door, running 10 feet to the adjacent house; canes average 22 feet long, 6 in number.

A few of the frozen bunches remained, a few days, on the vine. I was surprised to find them very good October 28th. Took them off, and laid 20 bunches of them in cotton. We ate them December 10th and thereabouts. I insist upon it that they *could not be told from the others*, except by a slightly roughish taste, and lack of clear, fine juice. They were *not* shrunk, and no man living could have told that they had been frosted by their appearance, or by handling. I insist furthermore, that all the white frosts from September to October 20th *improve* this grape. I invite all doubters to come and see. They will find five bushels of this fruit boldly exposed to the weather till, certainly, October 15th. I use no awnings or covers, as they are expensive. Hundreds of people come to see my vines every year, and they are all surprised, with one accord. *There they hang*, in rich clusters, frost or no frost, till October 10th to 25th, if need be; and three months afterward, they are passed around "to try," and all are satisfied.

Don't overload your vines. Prune with moderation. Plant in a good sunny aspect, and ALWAYS against a house or wall, sheltered from the winds. Let your fruit hang till it's ripe. Feed your vine reasonably. Don't grow nervous, and never get scared.

Wiscasset, Feb. 7th, 1853.

Many thanks, Mr. J., for this codicil to your former excellent articles on the grape, (Vols. XVI and XVII.) We know very

well, if our readers don't, that you are neither "nervous" nor easily "scared," or else you would long ago have given up the culture of this delicious fruit. It takes just such constituted persons to pioneer in every good cause, and without them we should not be a "progressive" race. The prejudices which an enthusiastic man has to encounter are so great, that if he has no mind of his own, he is likely to do little good to himself or benefit society.

We need not occupy space in comments. We are glad to see that Mr. Gore (himself a new beginner in horticultural art) and Mr. Johnston agree so nearly in their mode of treatment of the vine. What little difference there is,—and it is only in regard to *shortening in*,—may be reconciled by supposing different modes of training, a less number of leading canes, or more space to grow. Mr. Johnston's practice is in perfect conformity to our hints on this point. We said that "except so far as the symmetry of the vine is concerned, or a confusion of growth is to be prevented, we would advise the system adopted by Mr. Gore," viz., of shortening in the new shoots only one fourth their length. Now this is very little different from the practice of Mr. Johnston. In Mr. Gore's case we have one shoot five to twelve feet long, and in Mr. Johnston's, three or four shoots one to two feet long. This is very different from the usual plan of stopping at *one* or *two* joints beyond the fruit, and keeping off all subsequent growth.

The principle is what we wish to establish, viz., that the greater the growth, the greater the quantity of roots, and of course the greater crop. Now a trained vine is in an unnatural condition, and the treatment must be in accordance with that condition; consequently pruning to a certain extent is absolutely necessary, and the only thing we wish to know is, how near we can approach the natural habits of the vine under artificial culture. This being ascertained, we can command the greatest results of which the vine is capable of producing.

The memoranda of Mr. Johnston's crops are exceedingly valuable, and show an interest in the subject which few cul-

tivators take. What a quantity of delicious fruit might be raised with a little care,—*four hundred and twenty-five pounds* in five years from *one vine*!

Let's calculate, as Mr. J. says. In New England there are, at a low estimate, say three hundred thousand dwellings, with sufficient ground to raise one or more vines. Now if every house has but one, as well treated as Mr. Johnston's, the total crop for five years would be *sixty thousand tons*,—at the low price of *four cents* per pound, amounting to nearly *five million dollars*! How great a luxury such a crop, and how much it would add to the aggregate of our agricultural productions!

We hope Mr. Gore will send us the results of his crop for the coming season.

ART. IV. *Pomological Gossip.*

THE VAN ASSENE PEAR.—We regret to see that our contemporary, Mr. Barry, has described this pear under a new name, thus tending to increase, rather than lessen, the present confusion in the names of fruits. He calls it the **VAN ASSCHE**. We had supposed that a variety, now apparently so old, (for we use the term *old* according to the date of its introduction into our collections,) which was received from Van Mons, by Mr. Manning, in 1835, would be free from any change of name after a period of twenty years, during which time it has been cultivated in all the amateur collections around Boston, often exhibited before the Massachusetts Horticultural Society, described by Mr. Manning, (Vol. VIII,) and figured by us six years ago, (Vol. XIII, p. 60.)

Notwithstanding it was raised by Van Mons, and sent to Mr. Manning as the Van Assene, in his own hand writing, Mr. Barry states he has "followed **VAN HOUTTE**, **BAVAY**, and others, who ought to be correct, as it is one of **BOUVIER**'s varieties." Now this is news to us. We know Bouvier has sent out to the world the Louise d'Orleans, which he de-

scribed as a *new* seedling of Van Mons, because it was found in his collection after he died, but we did not know the Van Assene was one of his varieties; as, however, the former proves to be only the Urbaniste, what confidence can be placed either in his names or descriptions? If Van Mons named it Van Assene, would it not be as good authority to follow him as Bouvier or Van Houtte? We think so. If original descriptions and names by the originator of a variety are nothing, where shall we look for correctness in our nomenclature of fruits. Even if the name had been originally wrongly spelt, would not twenty years' usage have claimed for it priority over all others, especially when no two foreign cultivators spell it alike? In some collections it is *Vanaesse*, in others, *Van Asshe*, and in a third, *Van Assche*, showing conclusively that they know no reliable authority for the name.

ORIGIN OF THE RED RUSSET APPLE.—The origin of this variety, with which, however, we have but little acquaintance, is thus given in the *N. E. Farmer*:—"Ten or twelve years ago, the branches of a large natural tree were grafted with the Baldwin. This tree stood near a large Roxbury Russet tree, and some of the branches extended into the top of the latter. When the grafted tree began to bear, it was noticed that those branches most remote from the Russet tree bore Baldwins, (like the scions,) and those nearest, a different fruit, which resembled in outward appearance a compound of the Baldwin and Russet. The fruit of the new kind was put by itself, and its characteristics noted. In two or three years its remarkable and valuable properties were clearly perceived. It had its own defined and strongly marked peculiarities."

Every gardener knows the importance of sports, as they are called, and it is a fact as well established in vegetable physiology, that such sports may be perpetuated, as that one fruit can be grafted upon another; but whether the above is such a case of sporting as usually occurs, we are unable to form an opinion, as the writer states that "the branches nearest the Russet tree bore fruits which were a compound

of the Baldwin and Russet." It is not usual for such sports to take place by the *wholesale*; generally, and so far as we are acquainted, they are always of a *single* type,—that is, a single branch will bear a *single* fruit or flower, a different color from the parent, (rarely unlike in shape); and such branch, if taken off and grafted or budded upon another stock, will retain its peculiarities. Such sports, too, it should be observed, take place without the least reference to the growth of any other variety in the immediate neighborhood.

That half or one side, or even one whole limb of a Baldwin apple tree should sport into a Russet, because it grew near the latter, we do not believe likely to happen. If so, then our varieties of fruits would soon cease to have any identity, for it is no uncommon thing to have half a dozen kinds of apples or pears grafted on one tree all bearing together, and yet retaining their true characteristics as long as they grow. No, there is evidently some error in attributing the origin of the Red Russet to the cause above given; and though few individuals, at all familiar with vegetable growth, would place any confidence in such a statement, there are others who may, and it is important to guard against such error.

Now we think the origin of the Red Russet, presuming the facts as above given are correct, to be from another cause. It is stated that the Baldwin scions were put upon a *seedling* tree. Would it not, therefore, be more natural to suppose that the branches which bore the Russet apples were part of the *original* tree, which accidentally escaped grafting, or if grafted, reproduced itself by new shoots below the scions, as trees often do, and which might have been overlooked in pruning, in either case? We think so. We have known repeated instances of this kind, and many of the errors in our names of fruits have resulted from such mistakes. We believe the reputed origin of the Red Russet to be of a similar character.

BULLOCK'S PIPPIN, OR SHEEPNOSE APPLE.—This old apple, described by Cox, and figured in our Magazine, (XV, p. 251,) has been recently described in some of the agricultural papers

under the new name of Hunt's Russet, with the remark that for the purposes of "exportation, beauty of form and coloring, it excels any other apple in New England, and stands at the head of them all"(!) It is a very fine apple, as our description will show, but it does not excel all others. In some collections it is known as the American Golden Russet.

ROOT-GRAFTED APPLE TREES.—We are glad to notice that our Western cultivators are beginning to appreciate the difference between a **ROOT-GRAFTED** and a budded or stock-grafted tree. At the late Northwestern Fruit-Growers' Convention, the subject was alluded to in almost every fruit that was discussed. It is the first time we have ever noticed any expressed opinion on this mode of propagating trees, so common among nurserymen in New York and the Western States, where hundreds of thousands of trees are annually root grafted.

We have long been convinced that it was a perfect waste of time and money to plant root-grafted trees, and were satisfied that cultivators would find it out in time. We knew it was useless to offer any advice upon the subject, as it would be considered quite gratuitous. To tell a man that a budded or grafted stock was worth double the price of a *root-grafted* one, would only create a laugh at our expense. We therefore thought it best to let those who estimate the value of a tree by its *cheapness*, try the experiment fully, and realize the truth of the adage, "a fool and his money," &c.

The Swaar apple being under discussion, Mr. Williams, of Knox Co., Ill., was called on to give his views upon the advantages of stock-grafted or budded trees over root-grafted. "He had paid attention to it for several years; this year, had spent much time in visiting orchards and making observations." He believes that "for the orchardist, trees worked standard high *are better worth one dollar a tree*, than for them to plant root-grafted trees, *receiving those and a dollar with each tree as a gratuity.*" [The italics are ours.] Mr. Williams also further states that he had found *root-grafted* trees of the R. I. Greening "*invariably unproductive.*"

Messrs. F. R. Elliott, F. K. Phœnix, and others, expressed similar opinions in regard to the inferiority of root grafting.

We hail with pleasure this timely discovery, and trust our Western friends will plant but few root-grafted trees. There may be some exceptions to the rule; but it is safest to err on the right side. We commend to the especial attention of our many thousand fruit-loving countrymen, without regard to latitude or longitude, the advice of Mr. Williams, that *a good tree is better worth a dollar, than a poor one nothing and a dollar gratuity to take it.*

PRESERVING CATAWBA GRAPES.—The Catawba is one of our most excellent native grapes,—probably the best, all things considered,—but it will not mature in the N. England States one season out of five, and consequently its cultivation is limited. In very favorable situations it ripens tolerably well, but does not attain that high flavor, which is a peculiarity of its excellence. The Diana—so much like it—will therefore take its place with us, ripening perfectly, as it does, two or three weeks earlier.

But as there are thousands of vines under cultivation from which only a half-ripened crop is gathered, we are glad to know that even such a crop may be turned to good account. From the high vinous character of the berries, they retain their flavor much better than the Isabella, and possess the quality of attaining sweetness by keeping. Mr. A. W. Stetson, of Braintree, who has given much attention to grapes, recently exhibited, (Feb. 5,) at the rooms of the Mass. Hort. Society, some very fine specimens, deliciously flavored, which were gathered in so unripe a state that they were then not worth eating. These, he informs us, were laid out upon a table or clean board, in a cool airy place, and covered with cotton batting. In this way, without any other care, they kept well, and attained to a perfection scarcely excelled by the fullest matured crop among our Cincinnati cultivators.

Another year we shall try the experiment ourselves. The last autumn we gathered half a bushel from a small vine in October, but not thinking them of any value, they were placed in a box in our fruit room, where we noticed those on

the top retained their freshness till late in December. A few of the best were then eaten; but, thrown together as they were, many were mouldy and worthless. If they had been spread out carefully, in the way recommended by Mr. Stetson, they would undoubtedly have ripened up in excellent order.

ART. V. *Descriptions and Engravings of Select Varieties of Apples.* By the EDITOR.

WE continue our descriptions of apples from our last volume, (XVIII, p. 542.) One of those we now figure is a new variety to our cultivators, (though long since produced from seed,) possessing the excellencies of our best winter sweet apples. The Republican Pippin, though long ago introduced into our collections by the late Mr. Manning, is yet but little known to our pomologists.

LII. BURR'S WINTER SWEET.

The first we saw of this excellent apple (*fig. 6*) was three or four years ago, when Mr. F. Burr, of Hingham, presented us with several specimens. We were much pleased with its appearance, and requested him to let us see it again: last year he kindly gave us more of them, and we found it well worthy the attention of cultivators. Mr. Burr has furnished us with the following note respecting its origin:—

“This variety originated in Hingham, Mass., where the original tree is now growing on the farm of Mr. Elisha Burr. In that vicinity it is cultivated in decided preference to any other Winter Sweet, and has found unusual favor wherever disseminated.

The original tree of Burr's Winter Sweet is one hundred and twenty-five years old, and measures eight and a half feet in circumference. Fifty years ago, while ploughing near it, a small root was cut off, from which started up a thrifty sucker, that now measures four and a half feet in circumference.

It is a good grower, makes a fine spreading head, comes into bearing early, and produces abundant crops in alternate years."

Size, large, about three inches broad and two and a half deep: *Form*, roundish oblate, flattened at the base, and rather full at the crown: *Skin*, fair, smooth, greenish yellow, distinctly striped and splashed with light red and vermillion, russeted at the stem, and dotted with small pale gray specks: *Stem*, short, about half an inch long, rather slender, and deeply inserted in a broad open cavity: *Eye*, medium size,

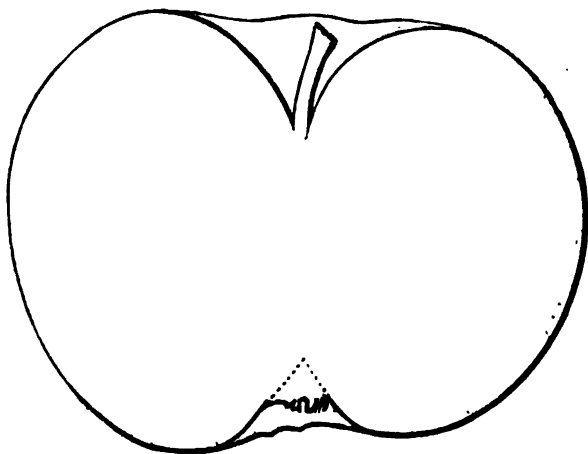


Fig. 6. *Burr's Winter Sweet.*

closed, and moderately sunk in a slightly ribbed, open basin; segments of the calyx short: *Flesh*, yellowish, fine, soft and tender: *Juice*, tolerably abundant, exceedingly sweet and rich, with a slight aromatic perfume: *Core*, small: *Seeds*, medium size. Ripens from December to March.

LIII. MURPHY. Kenrick's *Am. Orchardist*.

The Murphy (fig. 7) originated in Salem, in the garden of Mr. D. Murphy, several years ago. It was brought to notice by Mr. Manning, who furnished Mr. Kenrick with the account of it in his *American Orchardist*. Mr. Manning also described it briefly in our Magazine, (Vol. VII, p. 41.)

It has now become considerably disseminated, but not so

extensively, we think, as its merits deserve. It is not only a very handsome apple, but is a rich and fine fruit, well deserving a place in every orchard. It has a fine Pearmain flavor, similar to the old Blue Pearmain, which it resembles more than any other variety.

Size, large, about three inches broad, and two and three-quarters deep: *Form*, roundish oblong, narrowing most towards the crown, which is rather small: *Skin*, fair, smooth, with a deep yellow ground, nearly covered with light red, and distinctly splashed with dark purplish crimson, dotted with yellowish specks: *Stem*, short, about half an inch long, stout, and rather deeply set in a small, moderately deep cav-

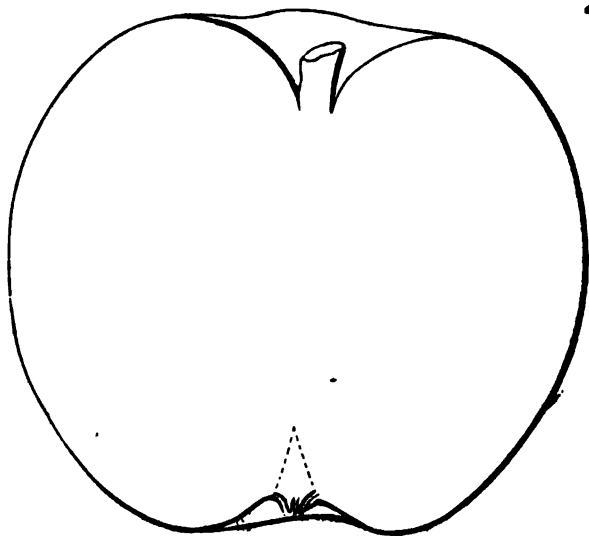


Fig. 7. *Murphy.*

ity: *Eye*, small, closed, and moderately depressed in a somewhat furrowed and rather small basin; segments of the calyx broad, twisted: *Flesh*, yellowish white, fine, crisp and tender: *Juice*, plentiful, pleasantly subacid, sprightly and high flavored: *Core*, large, open: *Seeds*, medium size, somewhat angular. Ripe from November to February.

LIV. REPUBLICAN PIPPIN.

The first notice we find of this apple (*fig. 8*) is the record of the name in the list of varieties *proved* by Manning up to

1840, and given in our Magazine, (Vol. VI, p. 171.) Since then it has been introduced into various collections, and specimens exhibited before the Massachusetts Horticultural Society, from its native locality. It has also been described by Dr. Brincklé, in the *Horticulturist*.

The Republican Pippin is said to have originated in Lycoming Co., Pa., where it was found growing in the woods, more than fifty years ago. Scions were taken from it and

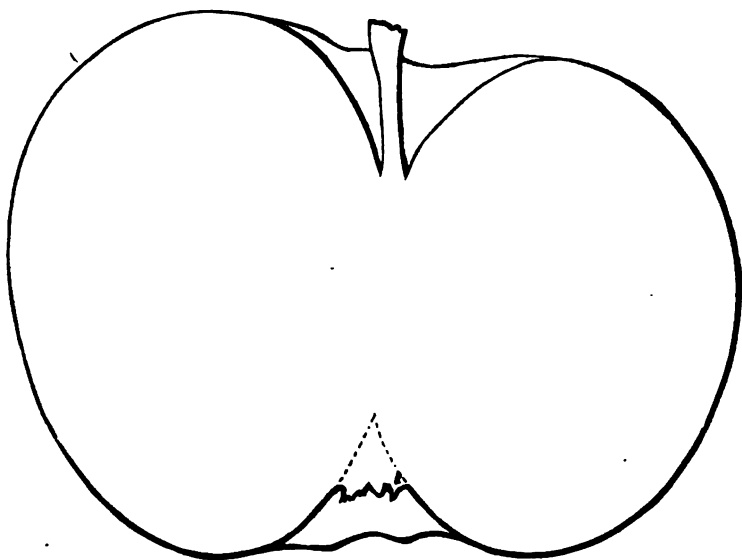


Fig. 8. *Republican Pippin*.

grafted into nursery trees, and it is now pretty well disseminated through Westchester Co., and that part of Pennsylvania.

It is a large, showy, and excellent fall apple, and well deserving a trial in New England. The tree is a vigorous grower, and bears a good crop every year. Our drawing was made in 1848.

Size, large, about four inches broad and three deep: *Form*, roundish oblate, much flattened at each end, narrowing very little to the crown, and somewhat unevenly formed or ribbed: *Skin*, fair, smooth, with a greenish yellow ground, rather distinctly striped and splashed with bright red, and dotted with large russet specks: *Stem*, medium length, about

three quarters of an inch long, stout, and deeply sunk in a broad open cavity: *Eye*, medium size, closed, and deeply sunk in a very large, round, open basin; segments of the calyx, short: *Flesh*, yellowish white, fine, crisp and tender: *Juice*, abundant, pleasantly acid, brisk, rich and high flavored: *Core*, small, closed: *Seeds*, large and broad. Ripe from October to January.

ART. VI. *The New Globe Amaranth.* By JOHN LEWIS RUSSELL, Prof. of Botany to the Mass. Hort. Society.

It is always pleasant to be introduced to a new plant. One half the pleasure many derive from horticultural pursuits, or botanical research, comes from the novelty of the object. Curiosity arouses itself to see, to criticise, to admire, or to reject. And then, too, the love for beauty comes in for a share of the enjoyment. This element of our natures ought to be a subject of education. How much it is prompted and gratified by the innocent taste for flowers, how refined it becomes when it meets with encouragement, the history of gardening readily shows.

Probably much of the well known interest which attaches to fruit culture is of precisely the same character. To watch the expected crop, from the earliest bursting of the pregnant bud to the swelling off of the rich cluster—from the carnation-tinted flowers to the perfected and blushing downiness of the peach—from the rosy blossoms to the growing ruddiness, or brown russet, of the apple's cheek—from the snowy racemes to the melting delicacies of the pear—to anticipate the coming epoch when the glaucous bloom on the skin of the plum shall attest its ripeness—these, we have no doubt, all enter into the pleasures of the horticulturist. Nor has any department of this comparatively modern art a want of varied interest in curious study and in pleasing results; and your friend's new maize, or your neighbor's new melon, or farmer Jones's new turnip, equally show the delight which novelty imparts.

The earliest recollections that many of us have connected

with flower cultivation, bring back to us some of the richest, though rather neglected, forms of vegetable beauty. Of these, what hold a more prominent place in our memory than the Crimson or the White Amaranths? We used to think that there must be something mysterious about them—in their persistent blossoms—in their stiff and seemingly priceless petal-like bractes—in their wooly seed-envelopes—and touching the proper time and best mode of sowing them in such season as would ensure the richest and largest heads. We even confess a homely and honest admiration of those lingering attachments to these long known exotics, evinced in such culture as often obtains in obscure or little visited places; occupying the same window, or perchance some rude bench, year after year, at some farmhouse, and becoming a sort of perennial, and yet annually renewed, necessity or fixture. The bold, flaunting dahlia has failed to supplant the elder favorite, let it bear itself never so bravely in your very face and eyes. Then, too, how our good old Globe Amaranth graces that spoutless teapot, or makes us oblivious of that rickety wooden box, between whose fostering sides it persists to glow with the same pride of its blossoms as it would do in the choicest parterre of the most lordly garden.

And what great difference, after all, the vehicle of the cultivation; it is the flower that we love. A new plant, too,—one soon learns to love the most technical description of a new plant. Should we despair of ever witnessing its rare beauty, it may be of a gorgeous epiphyte, throwing forth its bizarre wonders in the stove or hot house; or the towering height of some forest giant, which has grown by the centuries' watchful care. Every flower, shrub, tree,—the trailing, emerald-green, moss-like *petites* of the greenhouse,—the vigorous perennial, or the hardy annual, latest introduced to the border,—forms a new link, binding in a common interest the whole fraternity of kindred minds. I have even known a most ardent friendship awakened by some little instance of generosity of one amateur towards another in the first bestowal of a new variety of some rare and hitherto unheard of floral production. And delightful indeed must be those associations, which cluster around the memory of one's friends,

the character of which is so pure and touchingly beautiful. Would that such influences were wider felt, and regarded as means of social advantage; while, at the same time, the relative importance and utility of every sort of plant, however humble or however magnificent, would be understood and valued by all.

We have been shown a specimen of the new kind of *Gomphrena*, which the Messrs. Hovey have introduced, and an account of which may be found in the advertising sheet of their Magazine, and also a brief allusion to which is to be noticed in the Magazine for 1850, (XVI, p. 507,) and in the "*Retrospective View of the progress of Horticulture for 1852*," in the January No. for this year, on page 11. The specimen consisted, however, of little else than its terminal head; but from what we did see, we regret that our attention was not drawn to it sooner, and that we could not have seen it in a growing state. We think that it will recommend itself at once, as a new and richly colored annual, well fitted to our sunny and almost oriental summers. Mr. C. M. Hovey, who is most familiar with its form and habits, is inclined to consider it as a new species; and as he received its seeds from New Mexico, his opinion may prove to be correct. Should this be so, we think it proper to bestow upon it a name reminding us of those to whom so many in the community are indebted, through their commendable zeal in horticultural and floricultural pursuits, and the New Orange Globe *Amaranth* will be known as *GOMPHRENA HOVEYI*.

Hingham, February 10, 1853.

ART. VII. *Floricultural and Botanical Notices of New and Beautiful Plants, figured in Foreign Periodicals; with descriptions of those introduced to, or originated in, American Collections.*

NEW *HELIOTROPES*.—Two new and splendid varieties of this fragrant family have been produced by the French

cultivators. Their names are Louis Napoleon and Perfection, and are described as follows:—

Perfection, (Meillez.) Habit dwarf, vigorous, with enormous umbels of very large flowers, nearly white; magnificent.

Louis Napoleon, (Propo.) Plant vigorous; umbels of flowers enormous; flower very large; the most beautiful dark variety which exists.

Our plants are growing vigorously, and we hope soon to have the gratification of seeing them in bloom. They will be fine additions to our collections if equal to the above descriptions.

NEW HERBACEOUS PEONIES.—The French and Belgians are constantly adding to the number of superb varieties we already possess. Two new ones, of remarkable beauty, are now offered for sale, viz.:—

P. albiflora festiva máxima. Flowers perfect, twice as large as *P. festiva*, white as snow and tipped with dark crimson.

P. nec plus ultra. Flowers very large and perfect, yellowish white, bordered with rose, with a bright rose centre.

These are inviting descriptions, and if at all approaching them, they must be the most splendid yet raised. They are offered for sale at 25 frs. each.

NEW VERBENAS.—Messrs. Hovey & Co. announce six new seedling verbenas, viz.:—Summer Glow, Dawn of Day, Indigo, Peach-Blossom, May Flower and Hyperion. The first, the production of an amateur, and presented to Messrs. H.; it is one of the most remarkable ever raised.

Messrs. Hogg & Son, N. Y., offer some fine seedlings raised by Mr. Davidson, of that city.

CAJANUS BICOLOR.—The seeds of this Japan plant, introduced into the country through the unfortunate shipwreck of a Japan vessel in the Pacific Ocean, two years ago, have been recently distributed by Mr. Ernst, of Cincinnati, as the Japan Pea; and some notice of it will be found under our proceedings of the Mass. Hort. Society, in another page. It was introduced into England some years ago, and was figured in Curtis's *Bot. Mag.* It will be found fully described in our volume for 1845, (XI, p. 420.) It may possibly prove a val-

uable addition to our agricultural products. Those who have obtained seeds should give it a trial, and report upon it.

195. CENTROSOLE'NIA BRACTE'SCENS Hook. BRACTESCENT CENTROSOLENIA. (*Gesneraceæ*.) New Grenada?

A greenhouse plant; growing two feet high; with white flowers; appearing in summer; increased by cuttings; grown in light rich soil. *Bot. Mag.*, 1853, pl. 4675.

Resembles some of the gesneras, having an erect, simple stem, with opposite leaves, and axillary clusters of large white tubular flowers, surrounded with very large bractæ, from whence its specific name. It flowers freely in the summer, and will be a pretty addition to the greenhouse at that season. (*Bot. Mag.*, October.)

196. RU'BUS BIFLO'RUS Buchanan. TWIN-FLOWERING RASPBERRY. (*Rosaceæ*.) Nepaul.

A hardy or half-hardy shrub; growing ten feet high; with white flowers; appearing in summer; propagated by suckers; grown in a good rich soil. *Bot. Reg.*, 1853, pl. 4678.

A new and "really handsome bramble from Nepaul," which will probably prove hardy in our climate. It grows to the height of ten or twelve feet, and the stems of the plant are so white that they look "exactly as if they had been white-washed." The flowers are small and white, but are copiously produced in clusters all along the stems, and are succeeded by the good sized and well flavored orange or rather deep amber-colored fruit early in the autumn. Dr. Hooker thinks its "agreeable fruit will be worth cultivating for the table."

It grows just like the common raspberry, the suckers springing from the ground in clusters or fascicles, erect, branched, with many small slender side branches, the epidermis everywhere covered with a very white pulverulent coat, easily removed by passing the hand over it.

In England it has proved quite hardy; and with the same care we take in covering the raspberry, will undoubtedly prove hardy here, as it comes from a high altitude in Nepaul. (*Bot. Mag.*, Nov.)

197. FORTUNE'S DOUBLE YELLOW, OR WANG-JANG-VE ROSE.

This elegant rose, already considerably disseminated in our collections, does not seem to be fully appreciated. We

are not sure as we ever heard it highly praised; and yet, from the beauty of the colored plate, it *must be* a superb rose. An unfavorable impression of it seems to have preceded its introduction to our gardens, and this is fully accounted for by Messrs. Standish & Noble, who have succeeded in flowering it to great perfection, and whose remarks are of so much interest that we copy them entire:—

“Seldom,” write Messrs. Standish & Noble, in June of the present year, (1852,) “has a really beautiful flower remained so long comparatively unknown as this. Few persons have seen a blossom; and those who have not, believe it to be worthless. In fact there exists a deeply rooted prejudice against the plant, caused, no doubt, by the unfavorable report circulated when it bloomed the first time in this country. Yet nothing can be more beautiful as a flower, nor anything exceed it in delicacy of tint. Imagine a gamboge yellow ground, over which is thrown a tint of crimson lake, and you obtain an idea of its color. The centre petals have generally a predominance of lake, and the outer ones are more strongly marked; but there is a beautiful clearness about them which can only be appreciated by examining a flower. Aside from the prejudice which exists against the plant, many persons have spoken derogatively of it from having failed to cultivate it successfully; their plants producing but few flowers, and those indifferent both in size and color. This has arisen from an improper mode of treatment. If pruned in the manner usually adopted for ordinary standard roses, no flowers will be obtained, as they are produced from the wood of the preceding year, in the same manner as those of the *Persian yellow* and *Banksian* roses. Therefore, whether grown as a standard or trained to a wall, the shoots should be only thinned,—to shorten them is to destroy the flowers. We have now (June 28) some standards from three to four feet through the heads, covered with blossoms, and more beautiful objects can scarcely be imagined. We wish all who are prejudiced against the plant could see them. Again, it has been said to be tender; but we have never seen it injured in the least, even during the most severe

weather. It is one of the most rapid growing roses, and well adapted for a wall or pillar."

We trust our cultivators will take a hint from this, and produce the flower in all the beauty represented. Nothing can be finer. It most resembles the Saffrano, but the ground color is richer, and this is overspread with lake, which gives it a warm apricot hue. (*Bot. Mag.*, Nov.)

198. *MA'LVIA INVOLUCRATA* Torr. & Gray. INVOLUCRATED
MALLOW. (*Malvaceæ.*) Texas.

A half hardy perennial; growing two feet high; with purple flowers; appearing in summer; propagated by division of the roots and cuttings; grown in good rich soil. *Bot. Mag.*, 1852, pl. 4681.

The genus *Nuttallia*, by general consent, has been abandoned, and all the species transferred to *Málva*, and a new one established in honor of our American botanist. The present plant was raised from seeds sent to Kew, by Dr. Engelman, which were received from Texas. In England it is a hardy perennial, with deeply lobed leaves, and showy purple flowers. With us it will probably be a half hardy or frame perennial, flowering in July and August. (*Bot. Mag.*, November.)

199. *BEGO'NIA XANTH'NA* Hook. YELLOW-FLOWERED BE-
GONIA. (*Begoniaceæ.*) Boutan.

A greenhouse or stove plant; growing two feet high; with yellow flowers; appearing in summer; propagated by cuttings; grown in loam and leaf mould. *Bot. Mag.*, 1852, pl. 4683.

All the *Begonias* are pretty plants, and when *well cultivated* are beautiful additions to any collection. But some of the newer species are extremely beautiful, and this is one of them,—“remarkable for the large, full, almost golden yellow flowers, tinged with red at the back, which contrast well with the ample foliage, of a deep glossy green above, and with fine red petioles, peduncles, and underside of the leaf.” It flowered in Mr. Nuttall's stove at Rainhill, where it was raised from roots sent in 1850 from Boutan, by his nephew Mr. Booth. It is one of the best, and deserving immediate introduction into our collections. (*Bot. Mag.*, Nov.)

MISCELLANEOUS INTELLIGENCE.

ART. I. *Domestic Notices.*

THE SUMMER OF 1852 IN ILLINOIS, AND THE PEACH CROP.—As I expected, the peach crop was nearly an entire failure this year. Some few persons had a few peaches, and I found *one* only on my trees. It would seem as though the peach trees require to be exposed as much as possible rather than to be sheltered. Mr. Edson Harkness, a nurseryman living near Peoria, told me once to dig holes in an unbroken sod, in an exposed place, then set out the trees and let them take care of themselves. As my trees are well protected from the north winds, and I get no fruit, I think he must be right. I give you the warmest and coldest days in each month since last May:—In June the warmest was the 13th, 89°; coldest, 4th and 5th, 44°.—In July, warmest, 7th, 95°; coldest, 2d, 50°: it was 90° and over nine times in July.—In August, warmest, 24th, 96°; coldest, 12th, 51°: 90° and over only three times.—In September, warmest, 1st, 90°; coldest, 26th, 39°.—In October, warmest, 6th and 7th, 80°; coldest, 15th, 32°.—In November, warmest, 1st and 2d, 48°; coldest, 14th, only 17°.—In December, warmest so far, 2d, 55°; coldest, 1st, 24°.

The cold weather set in earlier than common this fall, and caught many unprepared for it. The apple trees were nearly in full leaf, and still keep so. For five weeks, from October 24th to November 28th, (inclusive,) we did not have one single day that was pleasant all day; it was cloudy and gloomy nearly all the time,—sometimes rain, sometimes a little snow. Last week we had a few pleasant days, but it soon grew cloudy again, and we have had a little rain for several nights, and some misty rain in the day time. Yours, E. S. L. RICHARDSON, *Kendall, Ill., Dec. 8th, 1852.*

ART. II. *Societies.*

GENESEE HORTICULTURAL.—The annual meeting of the Horticultural Society of the Valley of the Genesee was held in Rochester, on the 5th of February, and the following officers elected for the year:—

President.—John J. Thomas, of Macedon.

Vice Presidents.—L. Wetherell, Rochester; H. P. Norton, Brockport; R. G. Pardee, Geneva; M. Jeffrey, Canandaigua; Sam^l Shadbolt, Wheatland.

Corresponding Secretary.—H. E. Hooker.

Recording Secretary.—J. Vick.

Treasurer.—J. H. Watts.

There was a good attendance of members, and a show of winter fruit of great value.

PENNSYLVANIA HORTICULTURAL.—At the annual meeting of this society, held on the 18th January, the following officers were reelected:—

President.—Gen. Robert Patterson.

Vice Presidents.—James Dundas, Joshua Longstreth, E. W. Keyser, W. D. Brincklé.

Treasurer.—John Thomas.

Corresponding Secretary.—Thos. C. Percival.

Recording Secretary.—Dr. Thomas P. James.

Prof. of Entomology.—S. S. Halderman, A. M.

Prof. of Botany.—Wm. Darlington, M. D.

Prof. of Horticultural Chemistry.—Robert Hare, M. D.

The stated meeting was held on Tuesday evening, Feb. 15th, at the Chinese Saloon—the President in the Chair.

To the numerous visitors in attendance on the occasion the exhibition assuredly afforded much gratification. Many choice specimens of greenhouse plants were shown in the collections from four of our best conservatories. Among them a fine plant of the *Acacia pubescens* in full flower, from Gen. Patterson's house, stood prominent. A very well grown specimen of *Chorizema varium*, in rich bloom, was seen in Wm. W. Keen's display from West Philadelphia. Frederick Lennig's garden exhibited a fine table of camellias, and another of choice plants; among the camellias was a plant of the famed *Duca visconti*, displaying a beautiful flower, and seen for the first time. On the table furnished by R. Buist's foreman, were many choice plants, two of which were not seen before at our meetings, the *Epacris candidissima* and *E. miniata*. In Mr. Cope's collection of select plants were a handsome *Abutilon striatum*, and a new species, *Begonia albo-coccinea*. Cut flowers of camellias were brought from Mr. Buist's, Mr. Sherwood's, Mr. Lennig's, and others. Designs and baskets of cut flowers were presented from C. Cope, R. Cornelius, and R. Kilvington.

Thomas Hancock exhibited fine Easter Beurré pears. Mrs. Smith's gardener, five dishes of pears. M. W. Roe, two kinds of apples, and R. Cornelius' gardener, three varieties of apples.

On the vegetable tables were to be seen from Mr. Cope's forcing-houses, cucumbers, French beans, tomatoes and mushrooms. From Mr. Fisher's, fine cucumbers, mushrooms, lettuce, &c. From R. Cornelius, many good culinary articles. Thomas F. Croft presented a fine display of rhubarb.

The premiums awarded were as follows:

Camellias—For the best six plants, to J. Pollock, gardener to F. Lennig; for the best six cut flowers, to T. Fairley, foreman to R. Buist; for the second best, to I. Warr, gardener to J. Sherwood. *Primula sinensis*—For the best six plants, to B. Gulliss. Plants in pots—For the best twelve, to J. Pollock, F. Lennig's gardener; for the second best, to W. Gracey, gardener to Wm. W. Keen, West Philadelphia; for the third best, to T. Fairley, R. Buist's foreman. Plants in a pot—For the best, the *Acacia pubescens*, to I. Collins, gardener to Gen. Patterson. Plants shown for the first time, a special premium of \$2 to R. Buist's foreman, for *Epacris miniata* and *E. candidissima*. Another of \$1 to T. Meehan, gardener to C. Cope, for *Begonia albo coccinea*. Bouquet design—For the best, to T. Meehan; for the second best, to T. Meghran, gardener to R. Cornelius. Basket of cut flowers—For the best, to W. Hamill, gardener to Mr. Fisher; for the second

best, to R. Kilvington. And for a beautiful display of hyacinths, a special premium of \$2 to Peter Raabe. The committee specially noticed a fine specimen of the camellia variety, *Duca visconti*, from F. Lennig, an Italian variety, and shown for the first time. Also, a plant of the *Cypripedium acaule*, a native, shown by H. C. Hanson.

Pears—For the best ten specimens, *Easter Beurré*, to T. Hancock; for the second best, *Glout Morceau*, to F. Guoin, gardener to Mrs. J. B. Smith.

Apples—For the best ten specimens, *Newtown Pippin*, to N. W. Roe; for the second best, the same kind, to R. Cornelius' gardener.

Vegetables—For the best display of an amateur gardener, to W. Hamill, gardener to Mr. Fisher; for the second best, to T. Meghran, gardener to R. Cornelius; and a special premium to T. S. Croft, for a very handsome display of *Rhubarb*, containing five named varieties.

An interesting ad interim report from the Fruit Committee was submitted of the objects shown before them since the last stated meeting.

The President appointed the committees for the ensuing year.—T. P. JAMES, *Rec. Sec.*, Feb. 1853.

CINCINNATI HORTICULTURAL.—The annual meeting of this society was held on the 1st of January, and the following officers were elected:—

President.—S. Mosher.

Vice Presidents.—G. Graham, R. Buchanan, A. H. Ernst.

Treasurer.—W. Storms.

Rec. and Corresponding Secretary.—Dr. J. A. Warder.

Financial Secretary.—Henry Ives.

The Autumnal Exhibition will be held on the 22d, 23d, 24th and 25th of September next.

The list of premiums is published, amounting in all to \$1580, viz., Prospective Premiums, \$900; Flowers and Plants, \$335; for Fruits, \$211; for Vegetables, \$134. Among the premiums are *twenty copies* of Dr. Warder's Journal. We are glad our Western friends appreciate the importance of a *Home* periodical.

HORTICULTURAL OPERATIONS

FOR MARCH.

FRUIT DEPARTMENT.

FEBRUARY, with the exception of the latter part, was a mild and somewhat variable month, the thermometer falling to zero but twice. A continuation of the mild weather has favored the gardener who has had much forcing under his charge. The appearance now is that the ground will open early, although the earth is frozen deeper than it was on the 1st of February; a good rain, however, would take out the frost and leave the ground in good condition to begin the rougher operations of the fruit garden, such as trenching, &c.

GRAPE VINES in the most forward houses will now be swelling up their fruit, and will need thinning by the last of the month: liberal quantities of air should be given, being careful to guard against cold draughts: keep up a good temperature and a humid atmosphere by freely sprinkling the floors two or three times a day. Vines in the greenhouse will now be pushing vigorously, and by the end of the month will be in bloom: observe the directions just given for the early houses. Cold houses should be aired freely on warm sunny days, to keep down the temperature and prevent a premature swelling of the buds: the 1st of April will be soon enough to uncover the vines. Vines in the open air may now be pruned; it is the best season to do this, when omitted in the fall.

PEACH TREES in pots will be swelling up their fruit, and will require attention. A fresh lot may be brought in to keep up a succession.

FIGS in pots should be freely syringed, and liberally watered, as they advance in growth.

CURRENTS and **GOOSEBERRIES** should be pruned this month; and the ground may be manured, preparatory to spading, as soon as it is in good condition.

SCIONS of fruit trees should be mostly cut this month. Preserve in a cool dry place.

PRUNING trees may be forwarded now; improve every favorable opportunity to complete the work.

FLOWER DEPARTMENT.

The moderate weather of February has operated favorably in all kinds of forcing. With the exception of one cold week, ending the 20th, light fires only have been required to keep up the requisite temperature in all the houses. Plants look much more stocky and highly colored than usual after a continuation of very severe weather.

Now is the time to advance spring work; in about a month's time all will be bustle and hurry; lose no opportunity, therefore, to look over your collection of plants and see how large the stock and what kinds are wanting, so that propagation may be commenced at once to replenish the deficiency. If new additions are intended to be made, apply early, for two reasons, viz.,—to get a good selection, and secure specimens in season to propagate a duplicate or more. Make all calculations as to what is to be done, and proceed systematically to complete them. The houses should now have a thorough inspection, repotting all that need it, and top-dressing others. Attend to cold frames and hotbeds: the former will need an abundance of air in good weather, and a good heat must be kept up in the latter by new linings of dung or leaves. Sow all kinds of seeds for early blooming.

CAMELLIAS will now be getting over their bloom. Prune in such as need it, to a good sound bud, raise the temperature slightly, syringe every day, water with liquid guano, and a fine growth will be the result. Inarching and grafting may still be done.

AZALEAS will now be in full flower; water more freely.

PELARGONIUMS will be advancing rapidly. Keep them rather springly

watered and well aired; keep the shoots all tied out, otherwise handsome bushy specimens cannot be produced.

ACHIMENES and **GLOXINIAS** should be potted off singly now, and kept in the warmest part of the house.

PANSIES in pots should be shifted now if they need it. Keep as near the glass as possible, in a cool situation. Sow seeds for a succession.

CALCEOLARIAS will require the last shift now into their flowering pots. Seeds may be planted for a young stock.

CHRYSANTHEMUMS may be propagated now from cuttings.

HELIOTROPES wanted for early blooming should be shifted into larger pots.

VERBENAS intended for fine specimens in pots should have a shift into a larger size.

OXALISES done blooming may be placed away on a dry shelf.

GLADIOLUSES for early blooming may be potted now, and turned out into the border in May.

FUCHSIAS will need attention. Early potted plants will soon begin to bloom. Keep them neatly tied up and liberally watered.

HEATHS should have attention now; it is a period of the year when they suffer most by the high temperature of the greenhouse. Remove to a cold frame or other cool place to prevent injury to the plants by excessive growth.

SEEDS of annuals, of all kinds for early blooming in the garden, may now be planted in pots or boxes in the hotbed.

TORENIA ASIATICA, intended for fine specimens, should now be shifted into larger pots.

ALSTROMERIAS may be potted now for a succession. Those already well advanced may have a shift into larger pots if too crowded.

FLOWER GARDEN AND SHRUBBERY.

March is generally too cool and variable to accomplish much in this department; but if mild weather should set in the last of the month, operations may be commenced.

TULIPS and **HYACINTHS** will need to have a portion of their covering removed towards the close of the month.

PEONIES, **HERBACEOUS PLANTS**, &c., will also require the same attention.

PLANTS IN FRAMES, such as carnations, &c., should have careful attention and be well aired every fine day.

LAWNS should be rolled and put in good order before the ground is too dry. Apply guano if the soil needs enriching.

VEGETABLE DEPARTMENT.

Referring to our last number, the only thing necessary this month will be to keep up the heat by relinings of fresh manure, and to make up new beds if more room is wanted.

ALL KINDS OF SEEDS should be planted now; such as cabbage, cauliflower, broccoli, egg plant, peppers, celery, cucumbers, melons, tomatoes, &c., &c.

THE MAGAZINE OF HORTICULTURE.

APRIL, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *The Forest Trees of America.*

It is gratifying to every lover of beautiful trees to see how highly our native species are beginning to be appreciated. For years our planters have ransacked every foreign catalogue, and every foreign publication upon the subject, in order to find out all that foreign cultivators have gathered from other countries, or produced by chance or hybridization in their own gardens ; either forgetting or not knowing that the flora of North America is richer than that of any other country, or, in really hardy and valuable trees and shrubs, richer than all other countries together.

The late Mr. Loudon, in his valuable work, the *Arboretum*, has given a complete history and biography of all the trees indigenous to, and introduced into, Great Britain up to 1838 ; and for the information of those who are not familiar with it, we glean the following facts, which will fully bear us out in our estimate of the value of our native trees and shrubs.

The entire number of trees indigenous to Great Britain, as enumerated by Sir J. E. Smith, in the *English Flora*, and Sir W. Hooker, in his *British Flora*, is SEVENTY-ONE genera, including nearly TWO HUNDRED species, one hundred of which are willows, roses and brambles. The principal are :—

27 Deciduous trees from 30 ft. to 60 ft. in height.

28 Deciduous trees from 15 ft. to 30 ft. in height.

- 1 Evergreen tree from 60 ft. to 80 ft., the Scotch Pine.
- 3 Evergreen trees, the box, yew and holly.
- 91 Deciduous shrubs and very low trees.
- 12 Evergreen shrubs from 5 ft. to 15 ft.
- 1 Evergreen climber, the ivy.
- 14 Deciduous trailers, brambles, &c.
- 13 Evergreen shrubs from 6 in. to 1 ft. in height.
- 10 Deciduous shrubs of similar size.

These, it appears, are all that are indigenous to Great Britain, and, as Mr. Loudon observes, "that there are few trees and shrubs which are indigenous to the North of France, Belgium, and the North of Germany, which are not natives of Britain," the number indigenous to Northern Europe is but little beyond the above number.

From tables exhibited by Mr. Loudon, it appears that there were introduced into Great Britain from 1548 to 1830, about 1300 foreign trees and shrubs, viz. :—In the 16th century, 89; in the 17th, 131; in the 18th, 445; and in the 19th, (up to 1830,) 699!

Of this large number, *Europe* furnished 543; *Asia*, 183; *Africa and the Canary Isles*, 23; *Australia and Polynesia*, 4; *America*, 560, of which 528 were from North America!

"It would thus appear," remarks Mr. Loudon, "that nearly half of the trees and shrubs in the country have been introduced during the present century; and that these have been brought *chiefly from North America*. Among these are more than 300 trees which attain a timber-like size; and of these, by far the most valuable, is the larch. Some of the European acers, the sweet chestnut, some oaks, some poplars, pines and firs and the platanus and cedar from Asia, are also valuable as timber trees; but the *chief accessions* to this class are the acers, oaks, elms, ashes, poplars, birches, pines and firs of North America. Our principal fruit trees are from Asia, including the common walnut, which is both a fruit and a timber tree; *but by far the finest ornamental trees and shrubs are from North America*. Our greatest hopes for future introductions are from the unpenetrated regions of North America, and from the mountainous regions of Asia and New Zealand."

If such impartial testimony as this is not sufficient to show that our trees and shrubs comprise the most beautiful and valuable, so far discovered, in the known world, we need not offer any opinions of our own. Since Mr. Loudon wrote the above, many new trees, especially evergreens, have been introduced to Britain; they have been principally, as he expected, from the hitherto unpenetrated regions of Asia and North America.

The glory of the complete English country residence is its "American garden," so called, because almost exclusively composed of our native species, or hybrids from them; they comprise *kalmias*, *rhododendrons*, *andromedas*, *gualtherias*, *prinos*, *azaleas*, *clethras*, *rhodora*, *epigæa*, *vacciniums*, *mahonias*, &c., &c. These are all planted out in beds of prepared soil, more or less peaty and sandy; they have a luxuriant and rich appearance the year through, and in June, when in full bloom, produce such a magnificent display of blossoms, of almost every hue, that they bewilder the spectator with their profuseness and variety. No description can at all convey an idea of the splendor and brilliant coloring of the "American garden."

Our evergreens are no less prominent objects in every English landscape. The white pine, the hemlock, the *arbovitæ*, the spruces, especially those from the Northwest coast, &c., are among the finest *coniferæ*; the hemlock, in our opinion, unsurpassed by any evergreen tree yet known, and as far superior in real beauty, gracefulness, and all the characteristics of a perfect tree, to the *deodar cedar*, *araucaria*, or any Eastern pine or fir, as the Norway to our balsam fir. And the *Magnolia grandiflora*, ah! what lover of trees can stand before it and not feel a glow of pride that this, too, is a native of our own soil. So with the oaks, the tulip tree, the *virgilia*, the sugar maple, the elm, beech, *celtis*, hawthorn, *laurus*, ash, &c., &c.

We might go on enumerating a large list of beautiful trees and shrubs, which every garden should possess, and some of which, growing almost within sight of our doors, are yet scarcely known to exist here; but for the present our only wish is to direct the attention of planters to our native trees,

convinced that they will be far more richly rewarded for their labor than in seeking for those of distant origin. We undervalue no beautiful tree, come from where it may; but in seeking out our own, we shall be sure to get the most desirable and ornamental. In future articles, we shall notice more particularly some of our most desirable trees.

ART. II. *On Planting Evergreens for Ornamenting Villa Gardens.* By R. B. L.

IN my last article on this subject, I have stated that there are comparatively few of the large foliated evergreens indigenous to this country, or capable of enduring our rigorous winters, which form the undergrowth of English shrubberies, and therefore we are unable to produce the various expressions which characterize them. And as some who have read my remarks cannot see why there should be any difference in the general features of an American and an English landscape, I cannot better substantiate my statements than by analyzing an English shrubbery, and taking a glance at the materials of which it consists; and by contrasting an English suburban villa landscape with one here of similar extent, we will find that the difference is not owing to an absolute deficiency of landscape taste or appreciation of the beautiful,—for I believe this exists to as great an extent in this country, among those who possess villa gardens, as among the same class in England; but it is rather owing to a deficiency of those materials which they have in abundance on the other side of the water.

The American visitor, on entering an English shrubbery whether large or small, is generally struck with the richness of its *composition*; and this circumstance, in nineteen instances out of twenty, is owing more to its *materials* than to any distinguishable taste displayed in the arrangement. Moreover, on examination and inquiry, he finds that most of the shrubs in these grounds are not only foreign plants, but many of them positively indigenous to America, and natives of his own land, and are termed by English gardeners, by way of

distinction, *American plants*. In some pleasure grounds there are spots of ground set apart for the exclusive culture of these shrubs, and such places are called American gardens,—and rich, beautiful, evergreen gardens they are too, the plants being most generally grouped in irregular beds cut in smooth elastic turf, and the whole skirted by large bushes of the same species, from ten to twenty feet high, forming a dense, dark mass of evergreen foliage, the front of the mass, next to the walk, being planted with the andromedas, azaleas, and such like, the whole being in character, in unison, and in harmony, the plants being all of the same family, and requiring almost the same kind of treatment in their cultivation.

But let us analyze one of these little varied and picturesque English shrubberies, from a memorandum taken during a visit :—

Arbutus, 5 varieties.
Magnolia, 12 vars.
Araucaria imbricata and *excelsa*.
Cunninghamia lanceolata.
Ribes, 3 vars.
Mahonias, 4 vars.
Berberis, 7 vars.
Kolreuteria paniculata.
Diosperos virginica.
Buxus, 4 vars.
Virgilia lutea.
Pavia, 3 vars.
Cytisus, 4 vars.
Pittosporum tobira.
Quercus, evergreen, 3 vars.
Hamilodendron argenteum.
Camellia, 4 vars.
Pinus, 30 vars.
Abies, 12 vars.
Holly, 12 vars.
Thuja, 4 vars.
Melia azedarach.
Taxodium, 2 vars.
Edwardsia macrophylla.
Cydonia, 5 vars.
Cedrus libani and *deodara*.
Laurus nobilis and *Benzoin*,
 Sweet Bay.
Phillyrea pendula, vars.

Juniperus, vars.
Chimonanthus, 3 vars.
Cupressus, 10 vars.
Fagus, 7 vars.
Escallonia rubra, and 4 vars.
Acacia, 12 vars.
Cratægus, 18 vars.
Cerasus, 2 vars., Laurel.
Ulex, 3 vars.
Euonymus, 3 vars.
Xanthoxylum fraxineum.
Ptelea, 2 vars.
Aucuba japonica.
Rhododendron, 36 vars.
Daphne mezereum.
Viburnum, vars.
Spartium, white and yel., double.
Amelanchier, numerous vars.
Rhamnus alaternus.
Wistaria, 2 vars.
Salisburia adiantifolia.
Cotoneaster, 3 vars.
Myrtus, 4 vars.
Genista, 3 vars.
Dacrydium cupressinum.
Podocarpus nufifer.
Eucalyptus, 2 vars.
Olea europæa.

Here is a list, taken on the spur of a hasty visit, from a pleasure ground of two acres in extent ; and let our learned landscape writers, who are eternally talking about the pictures of landscape painters, and presenting them to us as models for imitation, tell us also how many of the evergreens herein mentioned we can have to decorate our suburban villas and rural landscapes. Some of these, it will be observed, are indigenous to this country ; but only two or three of the evergreens in the foregoing list are yet to be found in our gardens. The praiseworthy efforts of some nurserymen and private gentlemen to introduce the general planting of the rarer Conifers, and also the American holly, the kalmias, andromedas, &c., are deserving of all encouragement and commendation. We have lately observed in the collection of Messrs. Hovey & Co., at the Cambridge Nurseries, some of the newer kinds of Pinus, which we think only require to be seen to be at once admired. These gentlemen have of late years done much to naturalize the new Conifers and rare ornamental shrubs, yet hardly enough to make the influence of their efforts felt beyond their own immediate locality. The demand for new and rare shrubs is loud, yet there is nothing of any consequence to supply it.

The villa gardens in the neighborhood of our large cities are, for the most part, laid out and designed by the parties who occupy them, and who, in many instances, fancy they know—whether they do or not—how to lay out their grounds far better than any one else. Men who have made the art of landscape gardening their peculiar study, are very seldom engaged in the laying out of such plans, and for this reason alone, we are rather disposed to think, that any animadversions on the subject, in this relation, will be of very little avail. In most cases, improvers of this description find out their errors when it is too late to derive much personal advantage from the discovery ; and it is to be regretted that those who have experienced disappointments from their own efforts should be prevented from recording their experience for the guidance of others by any indisposition or unwillingness to expose their own blunders.

The most prevalent fault in all our shrubberies is monotony. In general, we find almost every portion of the grounds laid out and planted in the same way, so that however varied the surface may be, the one part is just the counterpart of the other. And how rarely do we see a real sacrifice made to absolute taste. Many indeed who lay out their own grounds have so little appreciation of the beautiful in landscape gardening, and so little idea of the enjoyments of taste, that they can see no beauty in anything that is not strictly applicable to the common purposes of utility, and while anxious to produce the best effect in their grounds, will nevertheless refuse to sacrifice the silliest whimsicality to obtain it. And it has often amused us in our course of practice to find the most trifling reasons presented in objection to propositions and purposes the most obviously effective and economical.

I shall conclude this article under the same conviction with which I began it, that a want of materials, and not of taste, is the cause of our not being able to imitate the landscape gardening of France and England; though some of the readers of this Magazine may, from the mere perusal of works on the subject, be dubious of the fact—and landscape gardeners, in these more temperate countries, cannot believe it.

March, 1853.

[We ought, perhaps, to qualify the remarks of our correspondent, by stating, that they apply only to New England and a part of the Middle States. South of Baltimore, all the above grow as freely in the open air as in England.—*Ed.*]

ART. III. *The Cultivation of the Pear.* In a series of Conversational Meetings by the members of the MASS. HORT. SOCIETY.

SATURDAY, Feb. 5.—Mr. E. M. Richards being absent, Capt. Lovett was called to the chair.

MR. CABOT stated, that, as the last meeting discussed the propriety of heading in pear trees when transplanted, we

might hear the opinions of gentlemen present in continuation of the same subject.

MR. STRONG wished to ask Mr. C. M. Hovey if he did not advise pruning in trees as a general thing: he so understood him, and would therefore class him as in favor of heading in.

MR. HOVEY wished to explain. He did say that he advised pruning in as a *general rule*, because, as a general rule, trees were badly transplanted, the roots destroyed, or more or less injured. Take, say four fifths of the trees annually sold, and they would come under this rule, and thousands of worthless trees were annually sold at auction, not worth carrying home, —thousands again were imported, and more or less injured on the voyage. The number of really fine, healthy, well-rooted trees annually transplanted was, therefore, only a small proportion to the whole. Consequently, four fifths of them needed *doctoring*, *nursing*, extra care and pains to make them grow, or rather live,—for a great many of them never would grow. Such being the case, he did advise pruning in, as a *general thing*. But when, as he had before stated, the trees were what they should be, he *would not prune*, on any consideration, the *first year*.

MR. STRONG said he should class Mr. Hovey, then, in favor of pruning in trees, especially imported ones, or those from the forest. He understood the views of Mr. Walker to be different, and he believed them untenable. Mr. Strong discussed the subject further, and in reference to the action of sap, the functions of the leaves, and collateral matters, which were replied to by Mr. C. M. Hovey. Mr. Strong instanced an experiment with mercury, made to test the ascending force of the sap.

DR. WIGHT stated that he had satisfactorily tested the value of quicksilver and sulphur in destroying insects. Three years ago he bored a hole in an apple tree, poured in quicksilver, and plugged up the hole tight. One year after, he opened the hole, and found the quicksilver in the same state and the same quantity as when put in; it had not undergone the least change whatever. In another tree he bored a similar hole, and inserted roll brimstone. A year afterwards, it

was opened with the same result as the other experiment; not the least change had taken place; the sulphur remained as when put in.

MR. C. M. HOVER thought this a perfectly convincing proof of the utter falsity of such experiments. Dr. Wight was a careful observer, and accurate in all his experiments; and he trusted this would forever set at rest, at least with all reasonable men, the nonsensical idea that the quicksilver or sulphur would be decomposed and absorbed by the sap, and carried throughout the tree, poisoning the insects which feed upon the leaves! It was an *annual* paragraph for the newspapers, and underwent *annual* trials by persons who believed all they read in them, especially upon agricultural or horticultural topics, and who always reported successful results. If these discussions elicited such facts as these, their importance could not be questioned.

MR. JOS. RICHARDSON thought there was not a great difference of opinion as regards heading in trees. He believed if trees were not injured by removal, it was best *not* to cut them in,—if injured, then it was best to prune. It was remarked by Mr. Walker, at the last meeting, that he did not approve of scoring trees. He had had some experience on this point, himself; and so far as he had tried it, it had not been beneficial: on unhealthy trees he had no success. His course was, when a tree was stunted, to encourage the growth of suckers: the top of the old tree he did not remove; but as soon as the suckers were well grown, say in the second year, then it was cut off, and a tree vigorous and healthy was the result. This he had found was far better than to attempt to renovate by scoring the bark.

He was pleased to hear the remarks from Mr. Stickney. He could relate his experience, dearly bought. Some ten years ago, he bought seventy-two dollars' worth of trees at auction. He set them out with the greatest care; nursed them up, but they would not grow and appeared stunted; some he scored, and others he headed in the tops, and took up suckers; still they grew worse and worse, and dwindled away, until he had dug up more than half of them. Those

remaining were yet only indifferent trees. He had made up his mind that if he had buried his *seventy-two* dollars in the soil, he would have been much better off now.

MR. BRECK wished to add his experience in regard to poor trees. A few years ago he was passing an auction room, where a lot of Seckel pear trees were offered; wishing to get some of this variety, then rather scarce, he bought *fifty dollars'* worth; they looked very well in the bundle. Set them out carefully, and they scarcely made any wood; in fact, they looked so badly side of other trees the next year, that he pulled up three quarters of them; the others remained; a few started from their bottoms and made a tolerable growth; others he continued to cut down till scarcely an original tree remained fit to sell. If he had buried his money he would have been much better off.

MR. CABOT had but little to add to what he had already advanced. He could not wholly agree with Mr. Hovey. He understood him to say that he would not head in good trees, but in certain cases he would prune, particularly imported trees. He had received many imported trees so dry that he had to throw them into a pond of water to recover them. Yet they had grown well.

The leaves of trees act as so many forcing pumps—as absorbents—as lungs, throwing off water, &c. It is expedient to cut in trees, as you cannot get all the roots—and the roots will not take up as fast as the respiration of the leaves. Mr. Hovey says that when the roots are much destroyed he would head in; when not mutilated he would not cut in at all.

Adjourned one fortnight.

Saturday, February 19th.—MR. STICKNEY in the chair. The Importance of Mulching Pear Trees was taken up at this meeting.

MR. WALKER stated that much had been said about tan for mulching. He had used tan, sawdust, litter, leaves, &c., but he believed short new-mown grass one of the best things; he had mulched a great deal with it, and found that it laid close to the soil, and when covered with a few stones around

the trees he thought it highly efficacious. He would also use succulent weeds of the garden or roadside. He had used charcoal dust, and thought that a good thing; he found the soil underneath it retained the moisture well in dry weather; he had seen no different effects from tan; but if gentlemen present had noticed better results from its use, he would be pleased to hear some account of their experience.

MR. D. HAGGERSTON. He had some experience in mulching trees and plants. He had found sedge from salt marshes best; he dried it well in the autumn, stacked it up and put it around the trees in the spring, sometimes cutting it short. When applied he usually gave it a good watering, which made it lay close to the ground: he thought it decidedly the best material. One year he used it under strawberries and found it excellent, and had since considered it the best article; worms did not work in it so much as they did in short grass.

Mr. Haggerston was of the opinion that mulching might be overdone; and he had found that too heavy a covering was as injurious as too little. It should not be so thick as to prevent the access of light, air and heat to the soil.

MR. CARTER agreed with Mr. Haggerston; he had seen injurious effects from over-mulching.

MR. C. M. HOVEY had tried various substances for mulching. He had tried tan, litter, grass, sedge, &c., and he fully concurred with Mr. Haggerston, that the latter was one of the best materials for the purpose. It laid close to the ground, and was not easily displaced by the wind; it seemed also to hold the moisture longer after a rain or shower than straw or hay, which he attributed to the small portion of salt which it contained. He would recommend it to all as the very best mulching for trees or strawberries.

MR. RICHARDSON had used sedge for some time; used it as a mulching for trees, and as a covering for strawberries. The fine part of it, which was left after removing it from the strawberries in the spring, he had thrown around his pear trees, which are planted among the strawberries, and he thought with good results. He attributed it to the salt which it contained, though he might be mistaken,

MR. WALKER. Mr. Haggerston had stated, very truly, that over-mulching was injurious; he agreed with him; he would rather have none than too much. He never wished it placed so thick but what he could see the ground in places, so that the light, warmth and air might penetrate to the roots. One material had not been mentioned which he had used, and which he thought best; this was leaves, which he valued above all others; he always collected all the leaves from his grounds, but he would prefer pear leaves for the pear tree, if possible to get enough, and apple leaves for the apple tree; but if not, then he would take any he could get, oak, maple, or a mixture of these and other kinds.

MR. HAGGERSTON. Leaves were excellent; there was no doubt of that; but they must be properly prepared; for if not somewhat decayed they would be likely to blow away. He had always thought an old hotbed made of strawy manure and leaves the best mulching in the world. If leaves alone are to be used, they should be placed in a heap half rotted, and then applied to the ground.

MR. HOVEY said that he apprehended the success of Mr. Richardson's pear trees was owing to some more substantial substance than loose sedge. He would not undertake to give Mr. Richardson's mode of managing trees, as he could do that himself; still, for fear an undue importance might be given to sedge from what he stated, he would say he thought their vigor to arise from other causes. He had said his trees were set out among his strawberry beds, and when he now stated that every two years new beds were made, and load after load of the richest manure dug in to an already good rich soil, the secret of success was disclosed. It was the bountiful supply of food and not the mulching of fine sedge which enabled him to produce such fine pears.

MR. CABOT had used sedge for sometime, and had found it excellent; he presumed that in its decay it had some chemical effect, converting volatile salt into a muriate by the ammonia of the atmosphere; but though so good, he still thought strawy manure best—especially if not too much threshed, and well moistened with the drippings of the stable.

MR. W. E. CARTER thought salt was in no way beneficial. In England, where he was brought up, it was scarcely thought worth carting away, and he would not advise its use.

Mulching was excellent for all kinds of trees, but carried to excess it was extremely injurious. He knew pear trees, now two hundred years old, which had never been mulched, and they were yet doing well. He also knew of an orchard set out a few years ago, all the trees of which had been well mulched and carefully treated, and the trees were now actually mortifying. He thought the work was overdone. He was much prejudiced against tan, and did not believe it good for anything. Some years ago, when he was apprentice at Derby Hall, the head gardener had a border which he wished to renovate. There was a large heap of old tan, (oak bark tan,) which had been carried from the framing ground and laid till it was well decayed; this he thought would be just the thing; a foot thick of it was applied to the border, and the whole well mixed with the soil and trenched, and while he remained there, for some years, nothing ever grew and flourished well upon it.

MR. CABOT wished to inquire as to the best time to prune; he did not think it of much importance as regards young trees, as he found the wounds healed the first season. As regards large limbs, there might be some season better than others—he had cut off large limbs early in the spring, and covered them over, but found they rotted. He would therefore inquire of gentlemen at what season they thought it best to prune.

MR. HAGGERSTON thought any time would answer when the sap was not in motion.

MR. HOVEY preferred the month of May or June for cutting off large limbs; he thought the wounds healed over better than when done too early; he had not, however, had experience enough with old trees to give any decided opinion as regards the choice of seasons.

Some further discussion took place, when the meeting adjourned one fortnight to March 5th.

ART. IV. *Planting Trees.* By WM. SAUNDERS, Baltimore.

I WAS much interested in perusing the remarks on pear culture by the members of the Massachusetts Horticultural Society; such information is valuable, being the result of practical observation. I hope these "conversations" will be imitated by other societies, and the results made known. Many useful facts may thus be elicited, that, otherwise, would never have received publicity. At the meeting in question there were some remarks made on fall and spring planting, which does not accord with my experience, and as the subject is an important one, I beg to draw the attention of cultivators to it. The following is the remark I allude to: "No roots can be formed on any tree unless there is some growth made." If by this we are to understand that fresh roots cannot be formed without a *visible* corresponding extension of branches, it does not agree with facts. We have many instances of the formation of roots on leafless plants. The rooting of leafless cuttings is familiar to every one who has propagated by this means. These roots are undoubtedly due to the previous elaborative action of the foliage, but it proves that roots can be formed without the immediate action of leaves. It is on this account that fall is preferable to spring planting. Trees will furnish themselves with a supply of fresh roots (if planted immediately on the fall of the leaf) before cold reaches deep enough to prevent vegetation, which does not occur so soon as might be supposed. The earth parts slowly with the heat accumulated during summer. I do not consider that the advantages of fall transplanting arise from the circumstance that "the ground becomes settled, and the roots ready to strike into the ground the moment the frost disappears in spring," as I have observed that the frost will be out of the ground some time before sufficient heat is absorbed to promote growth, unless on the mere surface. I look upon a tree planted early in the fall as being placed under similar conditions to a cutting placed in *bottom heat* to form roots—the soil warmer than the air—which

naturally occurs during the months of October and November. In spring, of course, these positions are reversed, the roots are then placed in a colder medium than the branches. Leaves are produced, which speedily drain the plant of its sap, having no roots to supply the demand. Severe heading in must then be practised, to secure a doubtful existence, dependent upon the mutilation the roots have received, and subsequent favorableness of the weather. I have planted many trees both in fall and spring, have *seen* roots form without any growth made, and consider fall planting the gain of a season upon the future growth and welfare of the tree.

Baltimore, March 10, 1853.

ART. V. *A New and Economical Plan for constructing small Greenhouses for growing Plants in Winter.* By H. G. DAVIS, Esq., Millbury, Mass.

MR. EDITOR:—I wish to call the attention of your readers to the arrangement of a greenhouse that I have had in operation for two winters; and as that of 1851–2 was colder than the majority of our winters, I consider it a sufficient test of the adaptedness of the house to our climate.

Its recommendations are, 1st, the cheapness of its construction, where the situation of a building admits of attaching one to it, or where a building is to be built anew; 2d, the expense of supporting it, as it requires no additional heat,—thus saving the principal expense attending the cultivation of plants in a house devoted to the purpose.

My dwelling house has a piazza upon its southern side, facing a yard containing fruit trees, ornamental shrubs and flowers. The building is some five feet above the gravel walk, which is one foot from the base of a turfed embankment; this embankment is nine feet wide, and as high as the bottom of the underpinning of the piazza; the width of the piazza is seven and one half feet. I took out the earth, and walled up, from the base of the embankment, on the

front and two sides, extending into the cellar. The walls were stone laid in mortar, as high as the surface of the ground; above the ground, to the under side of the floor of the piazza, with brick; the front wall being no higher than the surface of the ground. The excavation was five feet below the gravel walk. Upon the top of the walls was placed a plank frame, arranged for the sashes, with intervening rafters. The sashes run under the floor of the piazza, and are fitted so as to be secure against storms. The under side of the piazza is lathed and plastered. Thus you see there is nine feet deep by two feet high enclosed with glass; the floor of the piazza covering the other portion, and all laying open to the cellar. In the cellar is a furnace for warming my house, but no arrangement for warming the greenhouse especially; it receives some heat, however, from so large a mass of brick being kept at a temperature of some forty to fifty degrees. It will be noticed that in using a furnace for warming a dwelling house, the variations of temperature are favorable for the wants of the greenhouse; as, in very cold weather, the furnace is heated, by the extra quantity of fuel, much hotter; and this necessity communicates an equal proportion of heat to the inclosing brick work. Another advantage in its (the greenhouse) connection with the cellar is, that as the air cools in the greenhouse during a cold night, it falls and is replaced by warmer air from the cellar; so that there must be a succession of cold nights and days to lower, essentially, the temperature of the whole cellar, with its walls and contents.

The thermometer, during the severe cold of the last winter, (1851-2,) stood at 40° above zero at 11 P. M. This was sufficient heat to keep the most tender of my plants from suffering. It will be readily understood that plants will bear this low degree of heat that have become inured to it, and have been in a particular state of rest. There are many that will grow during the winter in my house, and make considerable top; and I think there is not an exception to their making rootlets. No one would think of attempting to grow, at this temperature, a class of *hothouse* plants; neither would

they expect to have a suitable class of plants so forward, or flower so early, as though they had been kept at 60° of heat; but I think there are a large class that will be more healthy, and flower more perfectly, although later, for this degree of rest. My roses are now putting out buds, and forming wood freely. The daphnes, rhododendrons, and that class of plants, flower well. It is not supposed that this is the best place for growing and flowering plants that money and skill could produce; but the best, perhaps, that could be, with the same amount of expenditure.

I will mention a convenient mode of watering my plants, both the pots and the foliage. I have taken a lead pipe from the bottom of the sink in the kitchen, and, covering it in the bottom of the cellar, bring the end of it up beneath the front shelf of my greenhouse. When I wish to water, I cover the outlet of the sink, and pump it full of water; then, with a piece of rubber hose and a fine sprinkler, I can wash both the upper and under side of the leaves. The plants show their gratification by the bright green of their foliage.

Should I ever warm my greenhouse, it would be by placing any small boiler by my furnace, and then carry the steam from it, in a lead pipe, into trenches covered some six inches deep with earth, and ranging under the shelves, where the steam would be allowed to condense. This would warm the ground of the greenhouse, giving it a very equal temperature. This arrangement of a greenhouse would afford a good and convenient *locale* for plants, and rid ladies of the trials they have with them in their rooms. It likewise offers a source of extreme pleasure, without the trouble and perplexities they at present forego, for the gratification of the taste so worthy of being cultivated.

Millbury, Worcester Co., Mass., Feb. 1st, 1853.

Mr. Davis has exercised much ingenuity in the construction of a cheap plant house, which he has so explicitly detailed in the above communication.

We think the plan an admirable one,—not that we would like to see such take the place of other and more appropriate

buildings,—but one which can be readily enjoyed by every person whose house is so constructed as to admit of such an arrangement. A moderate sized greenhouse or conservatory, if detached from other buildings, cannot be erected for less than three or four hundred dollars; and many individuals who cannot afford so large a sum, and yet are extremely fond of plants, must therefore forego the pleasure of their cultivation. To all such, the arrangement adopted by Mr. Davis will be most acceptable. Even for the ordinary purposes of watering plants,—if nothing else,—it is well worthy of imitation. For where a greenhouse is not in reality needed, there are often many plants which it is desirable to keep over, such as verbenas, salvias, geraniums, fuchsias, &c., for bedding out and ornamenting the garden in summer, which, without some such place, must be purchased anew every spring. We recommend the plan to the attention of all lovers of plants.—Ed.

ART. VI. *New Varieties of Apples.* By T. S. H.

OUR nursery catalogues contain the names of numerous American apples, which have not yet been described in any of the works which have been lately written and published on Pomology. I think it would be useful to make a list of them all, if it can be done, in order that they may be presented at one view for reference. A few, doubtless, will be synonymous; many will be worthless, or only of second quality; but many will prove to be acquisitions; and a large majority will be far superior to most of the foreign sorts with which our nurseries have been encumbered, and which have occasioned us so much disappointment. The list below is an imperfect attempt to collect them, but can be largely added to by others, who take an interest in the subject; and if they will follow this example, and send you the names of such as they are acquainted with, in addition, it will not be long until a more complete list may be compiled.

SUMMER.

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| 1. August Tart, | 20. Paterson's Early, |
| 2. Bohanan, | 21. Price's Early Lemon, |
| 3. Charlotte, | 22. Primate, |
| 4. Cup, | 23. Saner's Sweet, |
| 5. Cyprian, | 24. Softling, |
| 6. Duling, | 25. Stanley, |
| 7. Early Redstreak, | 26. Summer Catline, |
| 8. Early York, | 27. Summer Spice, |
| 9. Evans' June, | 28. Trenton Early, |
| 10. Fahnestock, | 29. Tresling, |
| 11. George, | 30. Virgin Apple, |
| 12. Gillett's June, | 31. Wetherell's Early, |
| 13. Herr's June, | 32. Wilkins' Early, |
| 14. Linton, | 33. Wotring, |
| 15. Mohawk Sweeting, | 34. White Orleans, |
| 16. Munson Sweet, | 35. Zoar Benoni, |
| 17. Narcissus, | 36. Zoar Harvest, |
| 18. Osborn's Sweet, | 37. Zoar Nonsuch. |
| 19. Phoenix, | |

AUTUMN.

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|----------------------------|--------------------------|
| 38. Apple Butter Sweet, | 53. Gilbert, |
| 39. Baker, | 54. Grey's Sweeting, |
| 40. Branch Sweeting, | 55. Harrison's Sweeting, |
| 41. Bronze, | 56. Higbee, |
| 42. Carter, | 57. Hollow Rock, |
| 43. Cash Sweet, | 58. Hord, |
| 44. Corwin, | 59. Irwin's Red, |
| 45. Chaney, | 60. Landis, |
| 46. Crimson Nonpareil, | 61. Lake, |
| 47. Decker, | 62. Leanto Sweet, |
| 48. Dunbar, | 63. Ling Sweet, |
| 49. Foster's Yellow Fall, | 64. Lippincott, |
| 50. Foster's Striped Fall, | 65. Kinsey's Sweet, |
| 51. Gabriel, | 66. Madison Red, |
| 52. Gault, | 67. Merrit's Sweet, |

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| 68. Mangum, | 82. Sigler's Red, |
| 69. Miskimmin Sweet, | 83. Silliman, |
| 70. Mt. Pleasant Sweet, | 84. Stone's Sweet, |
| 71. Morris' Sweet, | 85. Sweet Bellflower, |
| 72. Loose, | 86. Sweet Rambo, |
| 73. Neff, | 87. Sweet Vandaver, |
| 74. Oglevie, | 88. Striped Ashmore, |
| 75. Ordway, | 89. Stint's Large Yellow, |
| 76. Orndorff, | 90. Thomas' Apple, |
| 77. Pratt, | 91. Virgin Sweet, |
| 78. Rebecca, | 92. Wing Sweet, |
| 79. Rager, | 93. Wyandott Sweet, |
| 80. Renner, | 94. York Vandaver. |
| 81. Red Ashmore, | |

WINTER.

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| 95. Akeson's W. Sweet, | 117. Chronical, |
| 96. Am. W. W. Calville, | 118. Elias, |
| 97. Abram, | 119. Federal, |
| 98. Armstrong, | 120. Fulton, |
| 99. Bethlemite, | 121. Freshling, |
| 100. Botts' Beauty, | 122. Gaston's Winter, |
| 101. Blickensderffer, | 123. Gamble, |
| 102. Brooks' Pippin, | 124. Gillet's Sweet, |
| 103. Basom Sweet, | 125. Glover's Seedling, |
| 104. Bentley's Sweet, | 126. Glover's Sweet, |
| 105. Burnett, | 127. Gooseberry, |
| 106. Buckingham, | 128. Great Vandaver, or |
| 107. Brownson Sweet, | Vandaver Pippin, |
| 108. Black Romanite, | 129. Hardling, |
| 109. Caton, | 130. Heckenwelder, |
| 110. Cabell, | 131. Heick's W. Sweet, |
| 111. Carbage, | 132. Higer, |
| 112. Colvert, | 133. Hogan, |
| 113. Cannon Pearmain, | 134. Howard, |
| 114. Cook's Greening, | 135. Hoadley, |
| 115. Crowley, | 136. Honey Greening, |
| 116. Chimney, | 137. Hosfeld, |

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| 138. Howell, | 171. Rapahannock, |
| 139. Jefferson Pippin, | 172. Randolph, |
| 140. Jones' Green Winter, | 173. Rowland Keeper, |
| 141. Keim, | 174. Ruscine, |
| 142. Kirkbride's White, | 175. Rusk, |
| 143. Kerr, | 176. Ross Green, |
| 144. Laquier, | 177. Sarchett, |
| 145. Lesber, | 178. Shippen's Russet, |
| 146. Little Rock, | 179. Stevenson's Winter, |
| 147. Loudon Pippin, | 180. Spencer, |
| 148. Loudon White, | 181. Swazey, |
| 149. Loudon Sweet, | 182. Stillwell's Pippin, |
| 150. Mayling, | 183. Stockton, |
| 151. Medbery, | 184. Shrieve, |
| 152. Mark Sweet, | 185. Switch Willow, |
| 153. Milam, or Blair, | 186. Smith's Cider, or |
| 154. Middle Apple, | Bucks Co. Cider, |
| 155. Moor's Sweet Pippin, | 187. Sweet Romanite, |
| 156. Mowell, | 209. Seedling Bellflower, |
| 157. Muskingum, | 210. Seneca Favorite, |
| 158. Newbold, | 211. Sweet Winesap, |
| 159. Norman, | 212. Springer's Seedling, |
| 160. Norris, | 213. Tulpenhocking, |
| 161. Ohio Greening, | 214. Vanlear, |
| 162. Obadiah, | 215. Vernon, |
| 163. Oliver, | 216. Waldomer, |
| 164. Oxford, | 217. Wantland, |
| 165. Polly Bright, | 218. Western Spy, |
| 166. Pomfret, | 219. Wonderlich Spice, |
| 167. Popyquamp, | 220. White, |
| 168. Pleasant Valley, | 221. Zost, |
| 169. Queen of the West, | 222. Zane. |
| 170. Quaker, | |

Coshoccon, Ohio, February, 1853.

We are glad to commence the work of making a list of all the American seedling apples, with the aid of one who is so well able to assist us as Mr. Humrickhouse. It is all impor-

tant that this should be done ; otherwise, in a few years, there will exist such confusion that it will be almost impossible to identify the originals. Where so many good varieties are produced directly from the seed, they soon become disseminated, often without name, and eventually, the original source being unknown, and not being referable to any existing variety, they are, if valuable, brought into notice as new seedlings, thus encumbering our catalogues with synonyms, to the disappointment of all cultivators.

As an additional value to the list it would be well to have the locality given where each variety originated.

We trust we may have the further assistance of our Western Nurserymen, in making a complete list of all the native fruits of that fertile region.—Ed.

ART. VII. *Prof. Kirtland's Seedling Cherries; in a Letter to the Mass. Hort. Soc.* Communicated by the PRESIDENT.

FEW pomologists have given so much attention to the cultivation of the cherry as Prof. Kirtland. He has not only fruited and proved a very large number, but has produced upwards of twenty seedlings, some of which may be classed among the best which have yet been raised. Several of these varieties are already tolerably well known, particularly at the West, while others have not yet, we believe, fruited, only in Prof. Kirtland's own collection, at Rockport, Ohio. They all deserve a full trial ; and, as he has so very liberally distributed the scions, we hope to have the pleasure, ere long, of giving a full account of them in our Magazine, accompanied with engravings of the fruit. The following letter and brief notice of them, by Prof. Kirtland, has been kindly communicated by the Hon. J. S. Cabot, President of the Massachusetts Horticultural Society :—

TO JOSEPH S. CABOT., Esq., President of the Mass. Hort. Society: Dear Sir,—Not knowing who, at this time, is the corresponding secretary, I have taken the liberty to address

the Society, through your medium, and also to forward to you, for them, a box of grafts.

I am aware that it is making a heavy draft on the credulity of an intelligent Society to solicit from them their confidence in twenty-two new seedling varieties of the cherry—yet scions of that number are embraced in the box. I hope they will accept of them, and make such disposition of them as will ensure a careful and thorough testing of their qualities. When that shall have been accomplished, I trust the Society will award them their true merits; and, should I be among the living at that period, I hope to learn from the Society the name of any cherry which equals the Gov. Wood;—of any two which equals Gov. Wood and Kirtland's Mary;—of any three which are more valuable for the table and the market than Gov. Wood, Kirtland's Mary and Black Hawk;—and of any twenty-one kinds, foreign or American, which, taken collectively, will excel that number embraced in the enclosed catalogue, excluding the "Leather Stocking." Having tested them all for from three to five or more years, I have no fears of the result of such a comparison.

These, with the exception of Nos. 3, 4 and 22 of the list, were raised from pites of the Yellow Spanish, probably hybridized by the Black Tartarian, Black Mazzard and May-Duke. No. 3 and 4 sprung from a Morello tree standing in contact with a Carnation cherry tree. Very respectfully yours,
JARED P. KIRTLAND, *East Rockport, Cuyahoga Co., O.*,
Feb. 3d, 1853.

LIST OF GRAFTS FORWARDED TO THE MASS. HORT. SOCIETY,
BOSTON, FEBY. 3d, 1852.

1. *Tecumseh Cherry*.—Large; black; fine flavor; valuable.

2. *Red Jacket*.—Size medium; color red; flavor good; matures late.

3. *Shannon*.—Large and fine Morello.

4. *Kirtland's Large*.—Very large Morello, and very fine.

5. *Kirtland's Mary*.—Very large; amber colored; prolific; flavor excellent. Considered as one of the best.

6. *Elliott's Favorite*.—Size below medium; color and flavor resemble Belle de Choissy.

7. *Delicate*.—Size medium or above; color and flavor like No. 6. Both among the best for the table, but too tender for market.

8. *Doctor*.—Size medium; amber color; flavor delicate; ripens early—with the Early May; prolific to a fault.

9. *Cleaveland*.—Large; amber colored; fine flavored. The fruit sold for \$7 when the tree was nine years old from the seed.

10. *Leather Stocking*.—Large; hard fleshed; color deep red, with irregular stripes and blotches of black; flavor deficient. A curiosity.

11. *Gov. Wood*.—Very large; splendid; amber colored; flavor delicate, rich and sweet; prolific. The best of all cherries.

12. *Late Bigarreau*.—Resembles the Yellow Spanish in size, color and flavor; ripens two weeks later. Valuable.

13. *Black Hawk*.—Very large; glossy black; firm flesh; good flavor; prolific. Best of all cherries for market.

14. *Rockport*.—Large; amber colored; delicious; and prolific. Somewhat variable in its qualities in different seasons.

15. *Logan*.—Large; black; fine; valuable.

16. *Osceola*.—Large; black; fine; valuable.

17. **Jockosott*.—Large; black; fine; valuable.

18. *Brant*.—Large; black; fine; valuable.

19. *Pontiac*.—Large; black; fine; valuable. Resembles Knight's Black Eagle, but is far more prolific.

20. *Powhattan*.—Size medium; liver colored; good flavor. Popular in the market.

21. *Keokuk*.—Large; black; firm flesh, coarse grained, and not high flavored. Good for market.

22. *Kirtland's Mammoth*.—Size very large; amber colored; fine flavored. Growth of foliage and wood enormous. Does not fruit while young.

23. *Kirtland Pear*. Seedling of the Seckel, raised by my brother, H. T. Kirtland, Esq., of Poland,—first rate.

* Jockosott, a noble Sioux Chief, who died in Cleaveland, some ten years since,—to whose memory the citizens erected a monument in the public cemetery.

ART. VIII. *Pomological Gossip.*

NEW VARIETIES OF APPLES. The introduction of seedling fruits we are glad to perceive is attracting the attention of cultivators everywhere. The Massachusetts Horticultural Society has been a pioneer in this laudable enterprise, and we are happy to see that other similar associations are imitating her example, and bringing forward such varieties as appear to be worthy of perpetuation. The Pennsylvania Horticultural Society is just now, by the labor of the Chairman of the Fruit Committee, Dr. Brincklé, doing much in this way, and during the past and present season has published in its monthly reports descriptions of quite a number of new apples, mostly natives of Pennsylvania. We select such as appear to be new, that our Pomologists may give them a trial.

The Yost.—Rather large, two and three-quarters to three inches long, by three and three-eighths to three and three-quarters wide—roundish oblate—beautifully striped and delicately mottled with crimson on a yellow ground; stem short, less than quarter inch by one-seventh thick, inserted in a wide deep cavity; flesh yellowish, tender, juicy; pleasant flavor, “very good” quality.

Long Stem.—Below medium; roundish oblong, sometimes angular; skin red in faint stripes, with a number of grey russet dots; stem long, thin; cavity medium, acuminate; basin small, shallow, plaited; flesh, greenish white, tender; agreeably sub-acid flavor with Spitzenburg aroma; quality “very good”—not the long stem described by Cole.

Housum's Red.—Large, oblong, compressed at the sides—skin red in stripes, yellow at the base; stem short, thick; cavity narrow, not deep, slightly russeted; basin moderately deep, plaited; flesh, fine texture, tender, with delightful aroma; quality “very good” at least.

Yacht.—Medium, roundish, striped with red of various hues on yellowish ground; stem one-half an inch long, one-eighth thick; cavity open, obtuse; basin very shallow, plaited; flesh, fine texture, tender, pleasant flavor,—“very good.”

Mauck.—Large, of fine appearance, conical, angular; skin greenish yellow, with a few russet dots, and on the exposed side a blush; stem, short, thick; cavity, wide, irregular, deep; basin deeply furrowed; core, large, hollow; seed, light, brown, short, plump, obtuse; flesh, fine texture, tender, pleasant; quality "good."

Lecker.—Described by Thomas as Laquier, with a synonyme Lacker—medium, roundish oblate; skin striped with crimson on a paler red, with numerous large light dots; stem short and slender, sometimes stout; cavity russeted, narrow, rather deep; basin wide, deep, plaited; seed, dark cinnamon, short, plump; flesh, whitish, fine texture, tender, juicy, delicate aroma; quality "good" at least.

Long Keeping.—Very small, roundish, stripes of dull red on greenish ground. Its small size and uninviting exterior will probably prevent its general cultivation.

Joel.—A seedling of Mr. Kuser—Size below medium, somewhat oblate, usually compressed; skin greenish yellow, with small patches of green, and elevated russet dots, and sometimes a faint blush; stem short, rather thick; cavity deep, narrow, russeted; basin narrow, of moderate depth, slightly plaited; flesh, greenish yellow, rather dry.

Barr.—Size, medium, variable in form, usually roundish, oblong, inclining to conical; skin striped with red, on a greenish yellow ground, sometimes a few small patches of green russet; stem short, rather thick, sometimes fleshy; cavity usually rather wide and deep; basin shallow, plaited; flesh, greenish white, fine texture and tender, but deficient in flavor.

Giant.—Large, roundish, tapering to the crown; skin striped with dull red on a mottled greyish ground, many light spots; stem long and slender; cavity moderately wide, deep; basin shallow, plaited; seed, brown, short, plump, obtuse; flesh, greenish white, fine texture, tender, agreeable flavor; "good" quality.

Krowser.—Medium size, roundish, conical, sparsely striped with carmine on a greenish yellow ground; stem three-quarters of an inch by one-eleventh; cavity narrow, obtuse;

basin shallow, plaited ; flesh, tender, of fine texture, but deficient in flavor.

Late Keeping Pie.—Medium size ; oblate, compressed, tapering to the crown ; skin, greenish yellow, with numerous russet dots, and a carmine cheek ; stem one-half an inch by one-sixteenth ; cavity rather wide, acuminate, russeted ; basin shallow, plaited, not in eating order.

Lesh.—Large, roundish, oblong, angular ; skin greenish yellow, with a number of minute russet dots, and faint blush ; stem short, rather thick ; cavity deep, russeted ; basin rather wide, deep, somewhat furrowed. Not in eating order.

The Winter Grison.—A promising Delaware apple ; roundish, greenish yellow, with numerous russet dots, and on the exposed surface striped and mottled with carmine ; represented to be an abundant bearer.—From Mr. Corbit, of Delaware.

The Bucks County Pippin.—A Pennsylvania Seedling ; large, roundish oblate, inclining to conical, greenish yellow, with sometimes a faint brown cheek ; stem short, not stout, inserted in a deep, open cavity ; basin wide, deep, slightly plaited ; seed small, short ; flesh tender ; texture fine ; flavor excellent ; quality "very good;" gives promise of being a valuable variety.—From Mahlon Moon.

Brooke's Pippin.—A native of Virginia, large, roundish, inclining to conical, obscurely ribbed ; greenish yellow, with a faint blush ; stem short, rather stout, inserted in a deep, irregular, russeted cavity ; basin small, shallow, waved, sometimes furrowed ; seed long, slender, acuminate ; flesh crisp, juicy, of fine texture, with a pleasant aroma ; quality "best;" this promises to be one of our finest late winter apples, bearing abundantly every year in localities where the Newtown Pippin, to which it bears some resemblance, does not succeed.—From R. H. Roby, of Fredericksburg.

The William Penn Apple.—A native of Columbia, Pennsylvania ; rather large, roundish oblate, slightly conical ; color greyish, delicately mottled, and striped with red on a greenish yellow ground, with numerous white specks, in the centre of which is a minute russet dot ; stem short, not very stout,

sometimes fleshy, inserted in an open, rather deep, russeted cavity; basin sometimes wide and shallow, usually narrow, rather deep and furrowed; flesh greenish yellow, juicy, with a delicious Spitzenberg aroma; quality "very good," if not "best;" represented as being an abundant bearer.—From J. W. Houston, of Columbia.

The Boalsburg.—A seedling apple of Centre County, Pennsylvania; large, oblong, inclining to conical, delicately mottled and striped with red on a yellow ground; stem short, thick, inserted in a deep, acuminate, russeted cavity; basin deep, moderately wide; flesh yellowish, juicy, sprightly, and refreshing; quality "very good."—From W. G. Waring.

The Hector.—A seedling apple of Chester County; large, oblong, conical, striped and mottled with red on a yellow ground; stem three-quarters of an inch long, slender, inserted in a deep, open, russeted cavity; basin narrow, deep, furrowed; flesh crisp; texture fine; flavor pleasant; quality "very good."—From P. Morris, of Westchester.

The Keim, which we have previously described, appears to be a late keeping winter apple, assuming a more beautiful waxen appearance with the advance of the season.

Evening Party.—This is the third time this delicious little apple has been submitted to our examination, during the present season. Each successive trial has served to confirm our estimate of its value.

The Orange.—A medium sized native apple, from the garden of Nicholas Lot, of Reading. The original tree which stood on the adjoining premises is now dead. The fruit is roundish, slightly oblate, faintly ribbed, of a warm yellow color, approaching orange; stem short, thick; cavity open, shallow, obtuse, irregular; basin shallow, wide, plaited. Flesh yellowish, with a slight orange tint; flavor sprightly; quality "good."

The Ohlinger.—A native apple of Pennsylvania. It originated with Ohlinger in Alsace Township, Berks County. It fruited in 1852, for the first time. Fruit below medium size; roundish; waxen yellow, with a pale brownish cheek containing many white spots, with usually a russet speck in

each; stem three-quarters of an inch long, slender; cavity deep, wide, russeted in rays; basin wide, shallow, furrowed; seed brown, short, broad, roundish ovate; flesh yellowish white, fine texture; sprightly flavor; quality "good."

The Dumpling.—A large, roundish, oval yellow apple; stem short; cavity contracted, shallow; basin narrow, rather deep. This is entirely distinct from the Dumpling of Cox, and is a good deal cultivated in some parts of Pennsylvania for culinary purposes.

The Alsace.—A seedling apple of Alsace Township. Size medium; form conical; skin whitish yellow, with a pale blush on the exposed side; stem short, slender; cavity narrow, acuminate; basin deep, open; flesh whitish, fine texture, juicy; pleasant flavor; quality "good." Though eaten on the 12th of March, it is said to be in eating order in September.

The Fallenwalder, or Fornwalder.—The Fallawater of Downing. A large, yellowish green apple, with a brown blush, uniformly fair, and of "good" quality. It is abundant in our markets, and, at this season of the year, the largest apple to be found there.

The Krouser.—This apple has been described in a previous report, and is represented as being wonderfully productive.—From W. Boas, of Reading.

The Hess.—A native apple of Conestoga, Lancaster County, Pennsylvania. Size medium; form variable, sometimes roundish, often conical; red in stripes of different hues; stem short, rather stout; cavity narrow, moderately deep, slightly russeted; basin deep, narrow; flesh greenish white, tender; flavor agreeably aromatic; quality "very good." From Casper Hiller.

The Reading Pear.—A new variety, received from C. Kessler. This valuable winter pear has been noticed in several of our *ad interim* reports. The present specimens, which were eaten on the 11th instant, have strengthened the favorable opinion previously expressed by us of its merits.

The above descriptions are all from the *ad interim* reports, prepared by Dr. Brincklé.

APPLES IN ILLINOIS.—The following brief notes on a few apples are from our correspondent Mr. Richardson, of Kendall, Ill. They will be read with interest:—

“Have you in your collection an apple called Stanard’s Seedling? I tried it, Nov. 7, with Bullock’s Pippin or American Gold Russet, and thought the first much the best, as being more juicy and sprightly tasted, beside being much larger. We received trees from Mr. Hodge, of Buffalo, and have had fruit two or three years; the tree is a good bearer. Mr. H., in his catalogue for 1849–50, describes it as ‘green, yellow and red; oblate; large; season December to March; very productive; juicy; pleasant; acid; fine.’ Two outlines, made November 7, measure three inches wide, and one and a half or more deep. The Hawthornden is quite a good apple here. I saw this year a tree loaded with them. And the Bellflower and Rambo do well here; the latter is rather a fall fruit than a winter one, but is very good if not over ripe. I saw this fall a fine specimen of the White Bellflower, (qq. ? Ortlely.) I think the following are also good apples, worth raising here:—Cooper’s Early white, (tastes like the Early Harvest, ripe in September,) Fallwater, Ladies’ Sweeting and Minister. The Fall Pippin has not much flavor, and is not so good as the Fallwater. The Cooper’s Early White is nearly a clear white, or very light green, with dark blotches; flesh very tender, juicy, and pleasant acid. The Early June apple is not near so good an apple as the Early Harvest; it is too dry and mealy. Perhaps this may prove to be the White Juneating. In color it looks much like the Early Harvest.”

VAN ASSENE OR VAN ASSCHE PEAR.—In our last number we made some remarks relative to this pear, and regretted that our friend Mr. Barry, of Rochester, had described it in the *Horticulturist* as the Van Assche, believing its true cognomen to be Van Assene. Mr. Barry has sent us the following note in answer:—

“DEAR SIR:—Allow me to correct an error in your remarks respecting the Van Assche or Van Assene pear. You ask, ‘Even if the name had been originally wrongly spelt, would not twenty years’ usage have claimed for it priority over all

others, especially when no two foreign cultivators spell it alike?' Now you will find that Messrs. Van Houtte of Ghent; Papeleu of Wetteren, Van Geert of Antwerp, Bavay of Vilvorde, Dauvesse of Orleans, Le Roy of Angers, and Oudin of Lisieux, have *Van Assche* in their catalogues, and most of them have had for five or six years; whilst *Van Assene* is not nor has been in any European book or catalogue to my knowledge. Here are seven of the most intelligent nurserymen and pomologists on the continent whose authority I have. I am no way dogmatized in these matters, but simply desire, as far as my agency is concerned, to make fruits known by their true names. I cannot agree with you, and I am surprised you should take such a ground that an error of twenty years' standing should not be corrected. You know how liable we are to commit errors when we rely on names sent us in manuscript. On the continent they commit errors in the same way. At this moment, the first nurseryman of Paris has 'Seakle' for our Seckel, and 'Leurs' for Lewis; and we frequently see worse blunders than these in consequence of a mis-reading of written names. I scarcely ever feel sure I have a foreign name right until I have seen it in print, in a locality where errors are not likely to be made.

Bouvier has committed errors, so did Van Mons, and who has not? There is no ground for an argument on this point. Errors have been committed on all sides; but we must be charitable enough not to believe them *intentional*, and do all in our power to correct them. Yours truly, P. BARRY."

To a larger part of Mr. Barry's views we readily assent; yet if it was one of Van Mons's seedlings, as he states in his letter to Mr. Manning, in 1835, he ought to have known how to spell the name. We still think that Van Assche is as much a corruption of Van Assene as Seakle is of Seckel. We have referred to the original list, and found, with the exception of a letter or two, all the names of more than one hundred and fifty pears rightly spelled. Van Mons stated that he sent Mr. Manning scions of some pears then for the first time sent out; and we doubt not this was one of them, for the name of Van Assche did not appear in the Belgian

catalogues in 1841, when Mr. Manning first fruited it. It was undoubtedly discovered by Bouvier, among Dr. Van Mons's seedlings, after his death. If this is correct, and the pear is a synonyme, as there can scarcely be a doubt, of the Van Assene, we are enabled to account for the variation in the name. But allowing Dr. Van Mons to know the names of his own fruits, we are still induced to believe that the error in orthography lies with Bouvier. We will endeavor to consult Mr. Manning, and ascertain his views upon the subject.

ART. IX. *Mr. Johnston's Isabella Grape Vine; with a Description of the Mode of Pruning, &c.* By A. JOHNSTON, Jr., Wiscasset, Me.

EVERYBODY cultivates, or at least wishes to cultivate, a grape vine, either for its delicious fruit, the odor of sweet blossoms, or the grateful shade of its branches. It covers the trellis, or decorates the arbor of every garden, or runs riot over the cottage door, or along the piazza of our suburban and city dwellings, and is probably more generally grown than any other fruit-bearing tree. Yet, notwithstanding this, we doubt whether there is any fruit whose management is so little understood. As usually seen it is allowed to grow in the most loose and rambling manner, without shape or comeliness of form. In winter a tortuous, leafless vine, and in summer a mass of confused leaves and shoots, with diminutive clusters of grapes dangling at the ends of long branches. As the general impression is that everybody can grow a grape, so the real truth is, that few know how to cultivate it at all.

Much has been written upon the cultivation and pruning of the vine; more, perhaps, than any other fruit; yet it is far more rare to see a beautifully trained vine than a handsome pear, plum or cherry tree. In the former case the cultivator has everything to do; in the latter, nature itself, if let alone, will often do better than when thwarted by ignorant hands.

That the grape vine can, however, in the hands of a skilful man be made a *neat, tidy* and ornamental vine, is well known from the many engravings we find in works treating upon the subject ; though some will have it that such pictures are manufactured, and not true copies of the originals. This, however, we know to be an error, for we have seen them trained in a variety of forms, and all methodical, symmetrical and beautiful. Such a vine is that of Mr. Johnston, which the annexed engraving represents.

"I send you," says Mr. Johnston, "a rough sketch of my vine, the one bought of Messrs. Hovey in the fall of 1845. It illustrates all I have been talking about, respecting the training, pruning and balancing the growth of the vine ; and, as an illustration, it might be of interest to a raiser of this *very fine fruit*, for I like to insist upon it it is a *very fine fruit*, when properly grown, properly *thinned*, and, last and most important of all, *properly ripened*. My household always prefer this grape to the white imported fruit, which last always set untasted as long as the Isabellas last."

In order that Mr. Johnston may be fully understood we commence with the pruning and training of the vine from the time of planting in 1845 :



Fig. 9.
Vine planted in 1845.



Fig. 10.
Vine pruned in 1846.



Fig. 11.
Vine pruned in 1847.

Fig. 9 represents the vine as it appeared at the time of planting in 1845. It then had three shoots.

Fig. 10 represents the vine after it was pruned in the fall of 1846. The main shoot has two leaders ; one of the side shoots two, and the other, one : five in all.

Fig. 11 represents the vine in the fall of 1847, after pruning. It then had all its leading shoots, *seven* in number ; the

additional branches were obtained from the two main shoots of the preceding year.



Fig. 12. Vine pruned in 1848.

Fig. 12 represents the vine as it appeared after pruning in the fall of 1848. The spurs on the old wood (that of the preceding year) are shown at the base of the shoots.

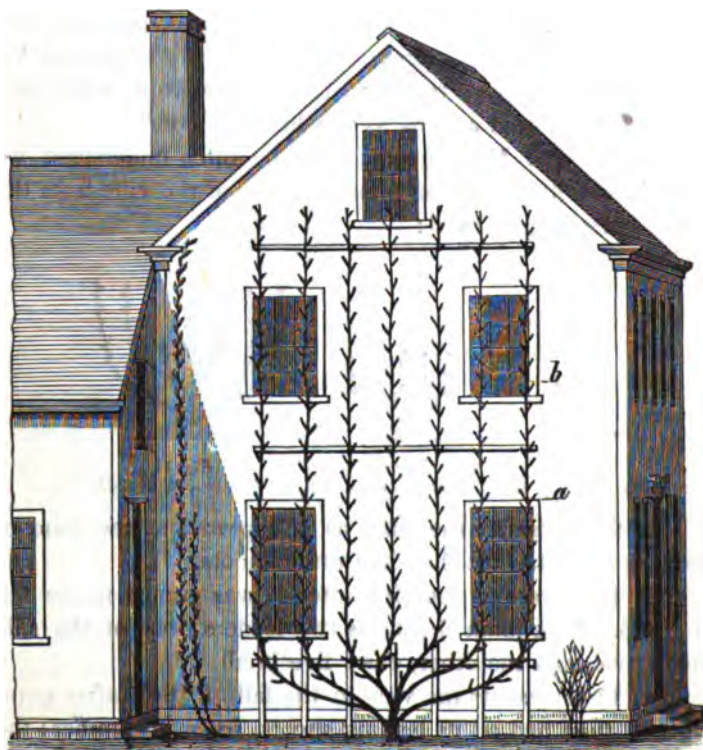


Fig. 13. Mr. Johnston's Isabella Grape Vine, seven years old in 1852.

Fig. 13 represents the vine as it now is pruned, and covering a trellis twenty-four feet by twelve; or rather as it will be, May 30, 1853. The letter *a* shows where it was stopped at the end of 1849, and the letter *b* where it was stopped in 1850. It reached its present height in 1851, and will now be kept where it is at the top of the trellis. The vine is trained on the south end of the house, protected from all winds except from S. to S. E. Mr. Johnston, in his excellent communication, has described his mode of pruning and management to obtain such a vine, and any one who follows his advice carefully may produce the same results.

It is not necessary, to produce grapes in the greatest perfection, that a vine should be just so symmetrical and pruned. This may be neglected, and yet everything go on well; but when training is begun it is much easier to proceed *systematically*, as it lessens the labor and care required in its management.

It matters not, therefore, whether the upright, horizontal, fan-shape, serpentine, or any other mode of training be adopted, only that the plan is laid down in the beginning, and all future growth made to obtain the end in view. This will be a great saving of time over the *no system* treatment.

All that it is absolutely necessary to know is, that the grape never fruits only ON THE YOUNG WOOD OF THE PREVIOUS YEAR. Consequently every move must be made with a view to secure a SUCCESSION of such wood, and to have it STRONG, and *well ripened*; to have it laid in at equal distances, so that the summer's growth will not be crowded, recollecting that EVERY INCH OF OLD WOOD is worthless, and to be cut away only so far as it is wanted for spurring in the young growth. Keeping these facts in mind every cultivator of a grape vine, may be sure to attain a reasonable degree of success.

Mr. Johnston informs us he has "a plan for a vineyard, and when the sign comes right he intends to try it without fear. I will," he says, "take 3600 pounds of grapes from a quarter of an acre of land, every pound of them worth at least a shilling in the months of January and February.

They can be preserved in admirable order, and at little cost, in shoal boxes with cotton bats.

"I shall appear again one of these days with a further budget of recorded and condensed facts for my brethren in the business to digest at leisure."—*Yours*, A. JOHNSTON, Jr., *Wiscasset, February, 1853.*

ART. X. *Floricultural and Botanical Notices of New and Beautiful Plants, figured in Foreign Periodicals; with descriptions of those introduced to, or originated in, American Collections.*

NEW AMERICAN CAMELLIAS. Quite a number of new Seedling Camellias have flowered the past winter among the nurserymen and amateurs. In a recent visit to Philadelphia and Baltimore we saw some admirable varieties, which will add to the already high character of our American seedlings. In a few years we shall have a list of sorts which will surpass any equal number that have ever yet been produced.

Among those which we noticed in flower was Feast's Triumph of Baltimore, a superb carnation-shaped variety, something in the way of Prince Albert, but more distinctly striped, and of regular imbricated form. It will, we think, prove the best of this class yet raised. Mr. Ed. Kurtz has two remarkably fine rose-colored ones, something in the way of Wilderi and Fordii. Mr. John Feast has Mrs. Lurman, a very fine mottled variety, in the way of imbricata. Mr. Mackenzie of Philadelphia has one in the style of the Duchess of Orleans, but said to be better; we did not see it in flower. Mr. Buist has also some fine seedlings, which we believe he has sold to the Continental florists.

Messrs. Hovey & Co. have had their seedlings superbly in bloom, and some of them are great novelties, being quite new in color: one is a dark maroon; another almost scarlet; a third, pink, with a blush centre; and a fourth, white, with a delicate carmine stripe; all unique in shape, petal, &c. Mr.

Wilder has some new ones out, particularly his large rose-colored one called Glory. Messrs. Winship have a striped one, similar to the Duchess of Orleans. As the plants get older and stronger we may expect to see them showing still better flowers; enough has, however, been seen to establish the reputation of all these Seedlings.

MITRARIA COCCINEA. This new and beautiful flower we have had in bloom for a long time. It is a most brilliant addition to the greenhouse in winter. Its profusion of large scarlet bell-shaped corols, depending from its small slender stems, and set off by its neat habit and tiny foliage, render it a conspicuous object. We have not heard of its flowering elsewhere in the country, though introduced two or three years ago. It does not flower freely until the plants attain a good size. We shall endeavor to give an engraving of it in a future number.

200. HO'YA FRATE'RNA Blume. THICK-LEAVED HOYA. (Asclepiadææ.) Java.

A stove plant; growing six feet high; with yellowish buff flowers; appearing in spring; increased by cuttings; grown in light rich soil. *Bot. Reg.*, pl. 4684, 1852.

This is one of the best of the many species of the *Hoya* which have yet been cultivated; excelled by none, unless the *H. bélla*. The flowers are large, and of a peculiar yellowish buff shade. The leaves are remarkable, no less for their size, than they are for their firmness and thickness; some of them measure a foot in length. The truss of blossoms is nearly as large as the *H. carnosa*. It was first discovered in Java, by Blume, and more recently by Mr. Thos. Lobb, who sent it to Messrs. Veitch of Exeter, in whose collection it flowered all last summer and autumn. It requires the same treatment as the *bélla* and *imperialis*. (*Bot. Reg.*, Nov.)

201. ECHINO'PSIS CRISTA'TA Salm Dyck. CRESTED ECHINOPSIS. (Cactæææ.) Bolivia.

A greenhouse plant; growing one foot high; with white flowers; appearing in summer; increased by offsets; grown in light rich soil. *Bot. Reg.*, pl. 4687, 1852.

A very fine species of the *Echinocactus*, heretofore called; but now classed under the new genus of *Echinopsis*, established by the Prince of Salm Dyck. In general appearance

it resembles *E. Eyrèssi*, but the flowers are larger, the petals broader, of "a creamy white, passing into the greenish purple of the outer sepals." It was sent home by Mr. Bridges, who found it in Bolivia. It is a very beautiful and desirable species. (*Bot. Reg.*, Dec.)

202. *VACCINIUM ERYTHRINUM* Hook. RED-TWIGGED WHORLEBERRY. (*Vacciniæ*.) Java.

A stove plant; growing a foot and a half high; with crimson flowers; appearing in autumn; increased by cuttings; grown in heath soil, loam and sand. *Bot. Reg.*, pl. 4688, 1832.

This is a very splendid species, having an erect habit, with evergreen leaves, and deep crimson drooping flowers; the young branches, and the petioles, and even the tendrils of the leaves are also of a deep coral red, giving the plant a most conspicuous aspect. It was sent to Messrs. Rollisson, by their collector, Mr. Henshall, who found it in Java; and it flowered in their collection last October. It is a fine acquisition. (*Bot. Reg.*, Dec.)

MISCELLANEOUS INTELLIGENCE.

ART. I. *Societies.*

ALBANY RENSSELAER HORTICULTURAL SOCIETY.

Annual Meeting.—The annual meeting was held on the 16th February, and the following officers elected:—

President.—Herman Wendell, M. D., of Albany.

Vice Presidents.—Henry Vail, of Troy; C. P. Williams, of Albany; E. Dorr, of Albany; Wm. Newcomb, of Rensselaer.

Secretary.—Jos. Warren, of Albany.

Treasurer.—Luther Tucker, of Albany.

Managers.—B. B. Kirtland, V. P. Douw, L. Menand, J. S. Goold, E. Corning, Jr., J. M. Lovett, E. E. Platt, W. A. Wharton, Jas. Wilson.

FRUIT.—A fine exhibition of fruit was made, being probably the same as shown at the New York State Agricultural Society's meeting.

Plants.—Five collections of greenhouse plants were made by Col. Rathbone, V. P. Douw, L. Menand, Jas. Wilson, E. Corning, Jr., and others.

PREMIUMS AWARDED.

FLOWERS.—For best six plants, of different varieties, in pots, L. Menand, \$3.

For best and most beautiful display of cut greenhouse flowers, L. Menand, \$3.

For second best do. do., V. P. Douw, \$2.

CAMELIA JAPONICA.—For best display of cut flowers with foliage, J. Wilson, Albany, \$3.

For the best six varieties, [for Miniati, Fordii, Double White, Wilderii, Landrethii, Carswelliana,] E. Corning, Jr., \$2.

For best three varieties, [for Carswelliana, Landrethii, Double White,] L. Menand, \$1.

CHINESE PRIMROSES.—Best six varieties, in pots, Mrs. Jas. Goold, \$2.

Best three varieties, in pots, E. Corning, Jr., \$3.

PANSIES.—Best ten distinct varieties, in pots, J. Dingwall, Albany, \$2.

The committee, also, wish to commend the displays of plants, in pots, of Mr. Jas. Wilson, Joel Rathbone, Esq., E. Corning, Jr., and J. Dingwall, all of whom exhibited choice specimens, showing much skill in the growing.

The time of shows was arranged as follows:—June 22d, Wednesday; July 6th, Wednesday; September 7 and 8, Wednesday and Thursday; February, 1854, 3d Wednesday.

A letter was received from C. P. Williams, Esq., suggesting sundry matters for improving the exhibitions of the Society, and advancing its interests; and proposing to advance \$50 to the funds of the Society as the foundation of a permanent fund for premiums, provided nine others united with him.

That the thanks of the Society be most cordially tendered to Mr. Williams for his liberal offer.

BANGOR HORTICULTURAL SOCIETY.

Officers of the Bangor Horticultural Society for the current year:—

President.—Col. Henry Little.

Vice President.—Col. Cyrus Goss.

Treasurer and Secretary.—A. W. Paine, Esq.

Corresponding Secretary.—J. D. Bartlett, Esq.

Executive Committee.—John S. Ayer, B. F. Nourse, and Albert Noyes.

Committee on Fruits.—Albert Emerson, B. F. Nourse, Albert Noyes, Walter Goodale, and John W. Chapman.

MARYLAND HORTICULTURAL SOCIETY.

The annual meeting for the election of officers, was held on the 7th March, when the following were elected for the year:—

President.—Dr. Thomas Edmondson.

Vice Presidents.—Thomas Winans, Henry Snyder, A. C. Pracht, and Samuel Sands.

Treasurer.—Edward Kurtz.

Corresponding Secretary.—William Saunders.

Recording Secretary.—R. F. Pentland.

Assistant Secretary.—John Tuomay.

Secretary to Committees.—H. B. Jones.

Committee on Plants and Flowers.—Thomas Winans, C. W. Stobie, John Tuomay.

Committee on Fruit—H. Snyder, John Feast, William Saunders.

Committee on Vegetables—S. Feast, sen., N. Popplein, R. F. Pentland.

—Yours, WILLIAM SAUNDERS, Cor. Sec., Baltimore, March, 1853.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting of this Society occurred in the Chinese Saloon, on Tuesday evening, March 15, 1853: the President in the chair. The sudden change from mild to severely cold weather, precluded the imposing display of large azaleas, rhododendrons, and fine greenhouse plants usual at the March meeting; yet those who attended were amply repaid with the sight of many interesting plants, and beautiful cut flowers in the tasteful designs, baskets and bouquets shown. Mr. J. F. Knorr's gardener, from West Philadelphia, exhibited a dozen of choice blooming plants, six pots filled with hyacinths, and the following new kinds:—*Templetonia glauca*, *Abutilon Vanhouttii*, *Azalea alba striata*, *A. exquisita*; cinerarias, *Carminata*, *Vicar of Wakefield*, *formosa*, Mrs. Sydney Herbert, Marianne, and Amie Robsart. Mr. Cope's gardener brought a dozen select standard plants, a collection of cinerarias, and two species shown for the first time—*Rhodostemma gardenoides*, and *Hypocyrtia strigilosa*. Peter Raabe, a large vase with a great number of blooming hyacinths—a rich show.

On the fruit table was seen a small basket of strawberries, from Mr. Cope's houses; Easter Beurré pears, from Thomas Hancock; St. Germain and Nouvelle d'Esperin pears, and Reinette franche apples, from Mrs. J. B. Smith; and Newtown Pippin and Carthouse apples, from Robert Cornelius; also, two large collections of vegetables, from R. Cornelius' and C. Cope's.

The following premiums were awarded:—Azalea, for the best grown specimen, to Thos. Meghran, gardener to Robert Cornelius. Plants in pots, for the best 12 specimens, to John Bell, gardener to J. F. Knorr. For the second best, to Thos. Meehan, gardener to C. Cope. New plants shown for the first time, to T. Meehan. A premium of two dollars for *Rhodostemma gardenoides* and *Hypocyrtia strigilosa*. Attention of the Society was particularly called to the new plants shown by Mr. Knorr's houses—*Templetonia glauca*, *Azalea alba striata*, *A. Exquisita*, *Abutilon striatum Vanhouttii*, and a fine collection of cinerarias, *Carminata*, *Vicar of Wakefield*, *formosa*, Mrs. Sydney Herbert, Marianne, and Amie Robsart. And for an American seedling camellia, a fine double white, the silver medal to John Sherwood. Bouquet design, for the best, to Thos. Meehan. For the second best, to Thos. Meghran, gardener to R. Cornelius. Basket of cut flowers, for the best, to Thos. Meehan. For the second best, to A. Hall, gardener to D. Rodney King. And a special premium for a basket, to Thos. Meghran. And another to Peter Raabe, for a large pyramid of hyacinths.

Pears, for the best 10 specimens, the Easter Beurré, to T. Hancock. Apples, for the best 10 specimens, the Newtown Pippin, to T. Meghran. For the second best, the Reinette franche, to F. Guoin, gardener to J. B.

Smith. And a special premium to Thos. Meehan, gardener to C. Cope, for a basket of Hovey's Seedling strawberries.

Vegetables, for the best and most interesting display, by a private gardener, to T. Meghran, gardener to R. Cornelius; and for the second best, to T. Meehan.

The following communication was read:—

To the Pennsylvania Society.—In accordance with a suggestion of the society, expressed in one of its regulations, that "notices of peculiarities in culture, management, &c., of the objects exhibited, are often desirable," I make a few remarks on the sexual characters of the plants of Hovey's Seedling strawberries I have exhibited this evening.

This variety is usually classed as a pistillate, and considered worthless when not planted in the neighborhood of a staminate kind. I find, by repeated observations, made while forcing them, that they become staminate by being forced slowly in a moderate temperature, receiving at the same time an abundance of light and a regular supply of moisture—conditions well known as essential to a healthy luxurianscence of the strawberry. On the other hand, I find that whatever tends to check that luxurianscence, has a tendency to produce the pistillate form. In the specimens before you, one very weak from overwatering and deficient drainage, is a pistillate; another, a weak plant and forced rapidly, has the anthers very nearly abortive; while the other plant, which has been in the forcinghouse since the middle of January, and in circumstances every way favorable to their healthy development, are as perfect as possible.

Last season, a number of plants, started in a temperature of 65°, and ripened in one of 75° to 80°, produced all pistillates. Twelve runners from these plants were selected, potted in small pots, and ultimately treated as other plants for forcing. Some of the strongest of these produced staminate flowered; and the other five pistillate, like their parent plants.

Another set of 100 pots, last season, forced very rapidly, produced plants all pistillates; a similar set, forced early this season, produced, all but the weakest plants, perfect.

It has been doubted whether the Alice Maud in many collections, is correctly so; and it has been suggested that the growers should observe whether their plants are pistillates or staminates, in order to decide.

I have submitted the above observations to you, hoping they may have a practical bearing on that question, by showing the distinction between pistillates and staminates to be worthless—cultivation producing either one or the other.—THOMAS MEEHAN.

Five gentlemen were elected members. On motion, adjourned.—THOMAS P. JAMES, *Recording Secretary*.

NEW YORK STATE AGRICULTURAL SOCIETY.

WINTER SHOW OF FRUIT AT ALBANY.—We attended the annual meeting of the N. Y. State Agricultural Society, on the 8th, 9th, and 10th inst., and the exhibition of fat cattle, sheep, hogs, poultry, &c., as well as dressed meats; grain and other farm products, was very superior; but what

interested us most was the display of fruits, which were unusually fine, there being several splendid collections of Winter apples, in over 40 varieties; a collection of pears, from our friends E. and B., of Rochester, of 40 varieties, (the best we ever saw.) There were some twelve to twenty kinds in good eating, and were really delicious. Some friends present, who had no *faith* in Winter pears, were convinced of the *error of their way*, and became converts from actually tasting the *good fruits* and judging for themselves. Among those in good eating, were those well known sorts, Beurré d'Arenberg, Winter Nelis, Glout Morceau, Le Curé, Passe Colmar, Prince's St. Germain, (very good,) and some others; and of the varieties of more recent introduction and not so generally known, were Josephine de Malines, Suzette d'Bavay, Doyenné Gris d'Hiver Nouveau, Inconnue of V. M., (very good,) Catinka, Epine Dumas, Bezi Sanspariel, (delicious,) and some others. Not in eating, were very fine specimens of Easter Beurré, De Louvaine, Doyenné d'Hiver Alençon, Chaumontel, Doyenné Goubault, Elize d'Hyst, Merveille d'Hiver, Bergamot Thouin, Bezi de Veteran, Perfume d'Hiver; for baking, Pound, Catillac, Chaptal, Bonchretien Spanish, (very handsome,) and several others, which we do not recollect, as we made no memorandum of them. There was also several dishes of pears, from other exhibitors.

Among the apples, were very superior specimens of Northern Spy, Newtown Pippin, Esopus Spitzenburg, Baldwin, Swaar, Peck's Pleasant, Wagener, Roxbury Russet, Hubbardston Nonsuch, Fameuse, Vandever, Yellow Bellflower, Red Canada or Nonsuch, Monmouth Pippin, Jonathan, Dutch Mignonne, Autumn Pearmain, Winter King, Tompkins, Smokehouse, Ladies' Sweeting, Tolman's Sweeting, Green Sweeting, Twenty Ounce, Pumpkin Sweet, Orange Sweet, and many other western varieties; among which, was a specimen of Willow Twig, (from Ohio,) Tulphocken, (from Pa.), and a few plates of a very superior apple, from Herkimer county, N. Y., called the Middle apple, the color of Swaar, but rather conical shape, and scarcely second to that variety in flavor.

There were also some excellent dishes of Isabella and Catawba grapes, looking as fresh and juicy as when gathered in October.

On the whole, it was the best exhibition of winter fruits we ever saw, and from which we gleaned valuable information.—Truly, &c., your friend,
A. SAUL, *Feb.*, 1853.

ART. II. *Massachusetts Horticultural Society.*

Saturday, January 1.—Exhibited. FRUIT: From the President, pears—Beurré d'Arenberg, Echasserie. From J. F. Allen, grapes—Prince Albert, Black Portugal, Syrian and Porteau Noir. From S. Downer, Jr., pears—Le Curé, fine; Easter Beurré, very fine; Epine Dumas, Columbia, Chaumontelle, Passe Colmar, Glout Morceau and Beurré d'Arenberg. From W. C. Strong, Syrian and Muscat of Alexandria grapes, cut November 1st.

From A. D. Williams, Easter Beurré, Catillac and Le Curé pears. From Cheever Newhall, Lawrence pears. From Hovey & Co., Lewis, Winter Nelis, and Beurré Langelier pears. From D. T. Curtis, very fine Easter Beurré and Glout Morceau pears. The Committee found the grapes exhibited by Messrs. Allen and Strong in a good state of preservation.

January 8th.—An adjourned meeting of the Society was held to-day,—the President in the chair.

Mr. Breck, from the Committee of Arrangements, reported that they had appointed the 20th, 21st and 22d days of September next for holding the Twenty Annual Exhibition of the Society.

Col. Wilder, from the Finance Committee, presented the Annual Report, which was read and accepted. The following is a synopsis of the Report:

RECEIPTS FOR THE YEAR 1852.

Balance in the treasury, Jan. 1,	\$800 14
Interest from Mass. Hort. Life Insurance Co., (fund \$4000,) .	220 00
Dividend from 53 shares of Worcester R. R. stock, .	371 00
Rent of store, \$1000; of hall, \$336, .	1,336 00
Assessments collected from members, .	759 00
Coupons from Passumpsic and Conn. R. R., .	300 00
Receipts from Mr. Auburn Cemetery, .	3,685 32
Interest from 22 shares in the Portsmouth and Saco R. R., .	120 00
Miscellaneous receipts, .	261 89
	<hr/>
	\$7,853 35
Receipts from temporary loans and discounts, .	7,782 00
	<hr/>
	\$15,635 35

PAYMENTS FOR THE YEAR 1852.

Taxes on real estate, .	\$192 00
Interest on mortgage, (J. Bradlee,) .	600 00
Expense of Annual Exhibition, (over receipts,) .	450 00
Premiums and gratuities, .	1,772 00
Insurance, .	145 00
Salaries, .	500 00
Care of hall and library room, .	105 60
Printing, advertising, binding, &c., .	674 09
Models of fruits of T. Glover, .	151 00
Marble bust of Theodore Lyman, by Dexter, .	300 00
Glass bills, lamp bills, gas fixtures, &c., .	239 75
Gold, silver, and bronze medals, .	326 00
Library, (Smith Fund \$55,) .	177 41
Miscellaneous bills, .	762 08
Balance on hand, .	240 42
	<hr/>
	\$6,635 35
Payment of loans and discounts, .	9,000 00
	<hr/>
	\$15,635 35

ESTIMATE OF SOCIETY'S PROPERTY.

Original purchase and Bradlee Hall, . . .	\$36,000 00
Additional purchase in 1852, . . .	12,000 00
Furniture of Hall and Library Room, . . .	4,029 00
<i>Permanent Funds :—</i>	
Appleton,	\$1,000 00
Lyman,	1,000 00
Lowell,	1,000 00
Bradlee,	1,000 00
Lyman, (new, in stocks,)	10,230 00
	<hr/> 14,230 00
Twenty shares in Portland, Saco and Ports. R. R., . . .	2,000 00
	<hr/> \$68,259 00
The Society now owes in mortgages and notes,	20,800 00

The President reported that the committee, appointed for that purpose, had decided to hold weekly meetings for the discussion of various subjects connected with horticulture, commencing Saturday, January 15th, at 10 o'clock.

Charles F. Cutter and E. S. Harmond, Somerville, were elected members. Adjourned one fortnight, to January 22d.

Exhibited.—*FLOWERS*: From A. Bowditch and James Nugent, camellias.

FRUIT: From B. V. French, White Seek-no-Further and Conway apples. From George Walsh, Le Curé pears. From Henry Vandine, Passe Colmar, Rosewater and Le Curé pears. From E. Wight, Red Gilliflower and Red Seek-no-Further apples. From D. Fosdick, Nonsuch and Baldwin apples, and a variety without name. From A. Perkins, Groton, a seedling apple, in eating since October. From S. Downer, Jr., Columbia and large Catillac pears. From E. Holmes, Bullock's Pippin apples.

January 22d.—An adjourned meeting of the Society was held to-day—the President in the chair.

On motion of C. M. Hovey, it was voted that the Executive Committee be requested to ascertain from Messrs. Ticknor & Co. the number of copies of the *Transactions* of the Society now on hand,—the number sold,—and the amount due the Society upon the same; and that they be requested to use their judgment in regard to the future sale and disposition of copies which remain unsold.

Dr. Wight read a letter from Mr. A. H. Ernst, accompanied with seeds of the Japan peas; and also a note from Mr. Teschemacher, upon the same. The Letters are as follows:—

"MY DEAR SIR:—I herewith send for your distribution amongst the members of the M. H. Society, a small parcel of peas.

The growth of the plant is peculiar, being of an upright and stiff form, somewhat branching; the leaves are large, light green, and downy beneath; the blossom is small and of a lilac color; seed pods numerous, small and woolly,—growing in clusters over the entire plant, proving very productive.

Its habit of growth is such as to fit it to withstand severe storms; and,

should it prove valuable as food for cattle, it must commend itself to the agricultural community in field culture.

In its cultivation it evidently requires room, to give the plant a full development for branching. Its bearing properties are immense.

Accompanying the seeds I send a plant, to show its habits of growth and bearing properties.

Its origin is said to have been Japan. It was introduced into this country, some two years since, by the agency of one of those calamities which sometimes result in benefit to mankind.

An American ship encountered a Japan vessel in distress, and the crew were carried to San Francisco, Cal. Amongst the stores which were transferred was the "Japan pea," a few of which found their way into the hands of Dr. Edwards, of Alton, Ill. He handed them over to Mr. J. H. Ladd, a distinguished horticulturist, who presented the produce to our society. Those now sent you were grown in my grounds,—having fully matured in our climate. Your climate may prove too severe.

I have sent small packages of seed to kindred associations, with the request that they may be placed in careful hands.

It is possible that it may not be anything new with you. I would be thankful for any information you may possess in reference to it.—Very respectfully, A. H. ERNST, *Spring Garden, Cincinnati, O., Jan. 11th, 1853.*"

"The plant alluded to by Mr. Ernst, is *Cajanus bicolor*, a native of East Indies, Amboyna, Japan, &c. Flower small, interior yellow, vexillum purple; erect shrub; pubescent; nearest in alliance to *Lupinus*. The seeds are good to eat, and, when young, very delicate. On soaking the round seeds for an hour, in moderately hot water, they take exactly the form and appearance of the common white bean, become quite tender, and have a pure and delicious nutty and oily flavor. *The whole plant, with the seed, is excellent for fattening hogs and cattle.*

There is one other species, *Cajanus flavus*, common in South America and the West Indies, where it is sometimes used for a fence to sugar plantations. In Jamaica this species is much used for feeding pigeons, and is there called the Pigeon-pea. In Martinique the seed is much esteemed for the table.

Being a tropical plant, it would hardly stand our winters. Yet, from the observations of Mr. Ernst, it is not improbable that our climate might admit of an annual harvest of the seed, which seems to be so abundantly produced as to make an experiment highly interesting.—Most truly yours, J. E. TESCHMACHER, *Boston, 19th Jan., 1853.*"

Exhibited.—FRUIT: From the President of the Society, Winter Nelis pears. From J. J. Dixwell, by the President, fine specimens of apples from Albemarle County, Va., under the name of Virginia Pippin, which proved to be the Newtown Pippin. The flavor of this fruit was most delicious, even superior, in the opinion of the committee, to the same variety grown in New York. From H. Vandine, Rosewater pears, Hubbardston Nonsuch, Porter, Dutch Codlin, Thomas and Broadwell apples. From G. Walsh, Easter Beurré and Le Curé pears, and quinces. From J. S. Amory, very

fine Winter Nelis pears. From A. W. Stetson, Black Hamburg and Sweetwater grapes, cut in September, in good preservation. From S. Downer, Jr., very fine Easter Beurré and Epine Dumas pears. From Mrs. Spaulding, South Reading, Belle Epine Dumas, and a baking pear, without name.

January 29th. Exhibited.—**FRUIT:** From S. Walker, extra large and fine Baldwin apples, also White Seek-no-Further. From A. W. Stetson, Isabella and Catawba grapes, retaining their flavor in a remarkable degree.

VEGETABLES: From Jona. French, forced asparagus, very fine.

HORTICULTURAL OPERATIONS

FOR APRIL.

FRUIT DEPARTMENT.

THE month of March has, with one exception, been mild and pleasant; with but little rain or snow, and at the present time the season appears much more forward than the average. The night of the 15th was extremely cold, with a very high wind, and the thermometer at 8°. But it was of so short duration that it did little or no injury to vegetation. The frost was all out of the ground by the 20th, nearly three weeks earlier than last year.

GRAPE VINES in the first house will now require more attention. The fruit will require thinning by this time, and this should be attended to and carefully done; shoulder up the branches, and top all laterals two or three eyes beyond the fruit. Damp the walks freely in all good weather. Vines in the greenhouse will now be in full bloom; raise the temperature slightly, and be rather sparing of water, until all the berries are well set; shake the Muscat of Alexandria, and other sorts which do not set freely, in order to distribute the pollen. Keep all the shoots tied to the trellis; and top two or three eyes beyond the fruit. Vines in cold houses should now be taken up to the trellis; keep an even and not too high a temperature at the commencement, as it may prove injurious if cold weather should set in afterwards; air freely, and close up early in the afternoon; syringe in good weather. Vines in the open ground should now be pruned, if not done before; they will bleed some, but not to do any material injury.

PEACH TREES in pots, now swelling their fruit, should be liberally watered. Give an abundance of air in fine weather.

CURRENTS, GOOSEBERRIES and **RASPBERRIES**, should be planted now; prune, dig, and dress old beds.

SCIONS of fruit should be cut immediately, as it will soon be too late.

STRAWBERRY BEDS should be uncovered now; clean out, and prepare the beds as early as convenient. If the ground wants manure dig it in between the rows.

FRUIT TREES should be planted this month; finish pruning now, if possible; graft all sorts of trees, beginning with the cherries. Manure, dig, and put in order all plantations of trees,—the earlier the better.

FLOWER DEPARTMENT.

The mild weather has affected the condition of all kinds of plants. Not so heavy fires have been required, and, in consequence, many plants have not started so early as usual. Camellias, in particular, have just begun to make their growth.

As the spring advances, and the houses become crowded, room should be made in frames to put out much of the half-hardy stock. Roses, Cinerarias, Primroses, Laurustinus, Heaths, Epacris, and many other plants, will do much better out than in the house. This will give room for the Geraniums, Calceolarias, Verbenas, &c., which keep the house gay all the spring. The Japan Lilies will also need room, if fine large plants are desired.

Many kinds of plants will now require to be headed in; such as Acacias, Polygalas, Azaleas, Pittosporums, &c., &c., in order to have compact, bushy plants; too often this is neglected, and some straggling branch allowed to remain, to the injury of the whole plant. Continue to sow all kinds of tender annuals that will be wanted for early flowering in the open borders. Pot off and bring forward everything in the way of showy bedding plants, as many will be needed.

CAMELLIAS will now be pushing their buds; keep them well syringed, and well watered; shade, if the sun is too hot. Inarching may be done to such as are not yet growing vigorously.

PELARGONIUMS will need attention; keep the shoots tied out carefully; air freely, and water rather more liberally.

ACHIMENES, GLOXINIAS, &c., should now be shifted into larger pots.

CALCEOLARIAS will need attention; keep down the green fly; and repot, if necessary.

FUCHSIAS will need repotting, if they are growing freely.

CHRYSANTHEMUMS should now be propagated from cuttings.

CHINESE PRIMROSES may now be removed to a frame, where they will do better than in the greenhouse; propagate the Double White and Purple from cuttings now.

PETUNIAS in pots will need a shift into the pots in which they are to bloom.

GLADIOLUSES and JAPAN LILIES should now have larger pots.

SALVIAS, HELIOTROPES, &c., should be propagated for bedding out.

CACTUSES should be more freely watered as soon as they show their buds.

OLEANDERS may now be shifted into larger pots.

HYDRANGEAS should now have a shift into larger pots. It is a good time to propagate them now.

CINERARIAS out of bloom should now be placed out in a cool frame, sheltered from frosts, and carefully watered. Late blooming plants may now be repotted. Seed sown now will make fine plants for early blooming next winter.

FLOWER GARDEN AND SHRUBBERY.

This is the greatest working month in the year in this department; on the proper arrangements now made will depend much of the beauty of the

flower garden for the season. Immediately set about digging, raking and clearing the shrubbery. Prune away all dead limbs and over crowded shoots. Roll the lawns now before the ground becomes hard and dry. If any planting is to be done prepare the ground early, so as to finish the work when the weather is better. Sow all kinds of seeds needed for filling the flower beds. Prune and put in order all rose plantations.

TULIPS, HYACINTHS, JAPAN LILIES and other winter bulbs should now be uncovered, and as soon as they are well up, and the soil dry, stir it with a trowel between the rows.

CARNATIONS and **PICOTEEs**, wintered in frames, may be planted out this month. Dig the bed deep, and manure well.

HERBACEOUS PLANTS of all kinds may be transplanted now.

PANSIES sheltered by frames may now have the covering removed. New beds may be made now from plants raised in the house. Shelter for a few days, till well inured to the weather.

PEONIES should be transplanted and divided before they get too far advanced.

DAHLIAS for early blooming may be started now in the hotbed.

GLADIOLUSES may be planted towards the last of the month.

ANNUALS of all tender kinds should be forwarded now in hotbeds or frames; and hardy kinds may be planted at the end of the month in the borders. **Rocket Larkspurs, Eschscholtzias, Clarkias**, and many of the Californian sorts, do much better for early planting.

VEGETABLE DEPARTMENT.

Make up new hotbeds for transplantations of cucumbers and melons, and reline old ones, to keep up a good heat. Continue to sow all kinds of seeds not yet in.

TOMATOES early sown should be potted off, or shifted into larger size, if already potted.

Egg PLANTS should be repotted, if growing vigorously.

CORN, SQUASHES, CUCUMBERS, LIMA BEANS, and many other tender vegetables may be forwarded a month by planting on *inverted sods* in the hotbed; to be planted out in May, after the frosts are over.

CABBAGES, &c., already up, should now be dibbled out into cold frames, and hardened off, in order to get them out early.

CARROTS, BEETS, &c., may now be planted in the open ground.

POTATOES may be forwarded on *inverted sods*, covering them with three or four inches of strawy manure. In May, each sod (about six inches square,) may be taken up and planted out at suitable distances, and a very early crop may be obtained.

ASPARAGUS BEDS should be top-dressed, and lightly dug with a fork.

LETTUCES, RADISHES, &c., for a succession, should be sown in *rich soil*, in the open ground.

Prepare all ground for planting, as speedily as possible, and forward all kinds of work.

THE MAGAZINE OF HORTICULTURE.

MAY, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *Ailanthus and Silver Leaf Abele.*

“Woodman spare that Tree.”

ALAS! that two such generally admired shade trees as the ailanthus and abele, which have so long shared the popular favor, should all at once have been doomed to destruction by such a writer as the late Mr. Downing. “Down with the ailanthus” and “down with the abele,” was the substance of one of the last articles which he penned just previous to his death. They were not even allowed one saving grace,—not one characteristic to entitle them to the least consideration; but heathens as they were, like the native inhabitants from whence the ailanthus came, they were to be hewn down and rooted out.

We were greatly surprised at this sudden change of opinion in one who had so long known their habits, and who had never, to our recollection, even questioned their general reputation as shade trees; and could not account for so severe a denunciation of them. Some unknown cause we thought must exist for such an outbreak; but the lamented death of the writer deprived us of the opportunity of knowing the motive, and the respect which we entertained for the author, induced us to defer any remarks until some more fitting opportunity.

We are not willing to believe that one tree has been un-

necessarily sacrificed by such a denunciation of them ; if we did, we should feel that we had been neglectful of our duty in not referring to the subject sooner. We are rather inclined to think that, notwithstanding some persons may have concurred in Mr. Downing's views, few, upon sober reflection, have cut down a beautiful and well grown tree.

We have never been so great an admirer or advocate of either the ailanthus or abele as many individuals, and have never, to our recollection, recommended, as many have, the former above all others, as one of the most desirable shade trees to be found. This great admiration of them has been confined to New York, Philadelphia, and Baltimore, but more particularly New York. In Boston and neighborhood, only a very limited number have ever been planted. We have always considered them as trees which should be sparingly used in ornamental plantations, and too rapid growers for street trees. Still they have their value, and are not to be condemned because some individuals do not know there is any other tree, or infer there is not, because their neighbors plant none, as suitably adapted to similar situations.

Legislation in matters of taste will not accomplish much. "Down with the ailanthus," from Mr. Downing, was all very well ; but for a committee of Congress to step in and insert a provision in the appropriation for ornamenting the public grounds at Washington, that no ailanthuses should be planted, was going a little too far ; for we are inclined to think that the views of that, or, indeed any, committee, will never be adopted in matters of landscape art. No ! it would be better to allow a competent person to have his own way in questions of this kind, and then there would be no danger of his planting them extensively enough to produce any of the ill effects attributed to these trees.

But why should not Mr. Downing, a writer upon landscape gardening for some years, have discovered the hateful character of these trees sooner ? In his *Treatise* on the subject, in the latest edition, bearing date only a year or two ago, he recommends both the ailanthus and the abele as among the very handsomest trees. It would seem as if he should

have found out their defects sooner ; and in a work intended to guide the public taste, have warned them not to plant trees, one of which "smells horridly," and the other "fills the air with fine down," and which, just as they have come to their full size, after the loss of a dozen years, he tells us must come "down."

Every tree has its value. The ailanthus and the abele have theirs. We admit, freely, that they have usurped the places which should have been filled with American oaks, maples, chestnuts, tupelo trees, Kentucky coffee trees, &c. This, however, was not so much the result of a want of taste in all cases, as it was a scarcity of better trees. For years and years, all that could be obtained at our nurseries, of any size, were elms—elms—elms—and individuals were as tired of elms as it would appear they have now become of the ailanthus. When, therefore, the ailanthus and abele were introduced to notice, they came as a real boon to planters, just when they wanted a change ; and as their rapid growth was in keeping with the go-ahead propensities of our people, they were greedily sought after and planted, to the exclusion of better trees. Could our American limes or silver maples have been supplied as readily and as *cheap*, for cheapness is, after all, a great item, they would undoubtedly have been planted to a much greater extent than they are at present.

But are the defects of these trees as great as is asserted ? Are they so horribly smelling that their disagreeable odor for a week or two, will not compensate for their grateful shade and rich foliage for six months in the year ? In estimating the character of a tree, all things must be taken into account, and if the good outweighs the bad, it must still be a desirable one. If not suitable for a street, where its branches reach every window in the house, and diffuse the disagreeable odor of its flowers, (for disagreeable it is,) is it not a fine object among other trees in landscape scenery, where its odor is lost in the broad expanse of fresh air, or is not perceptible ? We think so, and we believe all planters of taste will admit that it is a tree which, for its masses of light and shade, is scarcely surpassed. Even in the streets of our crowded cities,

where every breath of pure air is a blessing, we doubt whether the odor of the blossoms is more disagreeable than the constant "chawing" of the canker worm upon the elm and some other trees, and the falling shower of dirt which covers every passer by for three or four weeks, to say nothing of carrying off on one's shoulders and crawling over one's face and hands, a horde of vile worms which string down from them, in long succession. To take our own chance, we greatly prefer the "smell" of the ailanthus, or the "down" of the abele, to the enemies of the elm.

The abele certainly has valuable qualities which cannot be overlooked. We admit its liability to sucker, but this is not to shut it out of the pale of cultivation. The locust suckers, the lilac suckers, and many beautiful trees and shrubs have the same habit. But the abele is a very useful tree for light sandy soils, and for bleak and exposed situations on the seashore, where it withstands the gales and spray of the ocean, better than almost any other tree. If it cannot claim a permanent place in the courtly avenue, it may add a charm to some humble cottage by the seaside, where some fairer tree would soon wither and die.

Our advice therefore is, not to destroy trees already grown up, unless already too thick, but to use more judgment in the selection hereafter; recollecting that neither the elm, the ailanthus, the abele, the lime, or the silver maple, are all the trees suitable for streets or avenues. Neither would we mislead any one to suppose nurserymen will ever be able to sell the magnificent tulip tree, "twice cut or removed before hand, (of any size,) so as to enable them to warrant their growth in any good soil, for a dollar apiece."

The tulip is a truly noble tree, but it is removed with more danger, when of very large size, than almost any other tree, and consequently will ever be scarce as a street tree. Of small or moderate size, they grow as readily as an elm, and those who would possess them must be content to wait; he who is not, must take other trees.

The list of street trees is not so meagre as some suppose. There is the American, English, and Scotch elm; the Syca-

more, Norway, Sugar, Silver and Scarlet maples; the American and English limes; the Italian aspen; the American ash; the American beech; the hornbeam and tupelo tree; the chestnuts and oaks; all good growers, and possessing the proper requisites for street trees, unless very narrow, when the American elm is the least desirable. Let no planter therefore confine himself to ailanthuses or abeles, but scattering them sparingly throughout his grounds, introduce others whose growth, though not quite so rapid, or whose foliage, though not so massive, yet present other beauties which make up in what the latter is wanting. Above all, do not hastily and wantonly destroy a good tree, even if it be an ailanthus or abele.

ART. II. *Description of Select Varieties of Pears.*

By the EDITOR.

THE acquisitions to our collection of pears have been much richer the last season, than for any previous year for some time. More caution seems to have been observed by foreign cultivators and amateurs in sending out new varieties, than formerly, owing, undoubtedly, to the distrust with which the new ones are now received, unless vouched for in some more definite way than a mere announcement in a catalogue. Consequently a great number have already proved fine, and many others of high promise, among the acquisitions of 1851 and 1852. The Beurré Clairgeau, Doyenné du Comice, Fondante du Comice, Supreme de Quimper, Beurré Superfine, &c., are examples of what have been recently added to our stock of superior pears. We now figure and describe several new ones.

151. GRAND SOLIEL.

This fine pear, (*fig. 14.*) fruited, we believe, for the first time in American collections, last year. It promises to become a popular and generally cultivated variety, scarcely sur-

passed by any of its season, which is in November. It is one of Esperin's seedlings, and was introduced to notice by Van Houtte; who describes it in his catalogue as ripening from December to March. Our tree produced a heavy crop, which ripened off before December; but, as is the case frequently with some varieties, owing to the warm summer and heavy crop, they may have ripened prematurely.

The tree is a good grower, bears well, and forms a hand-

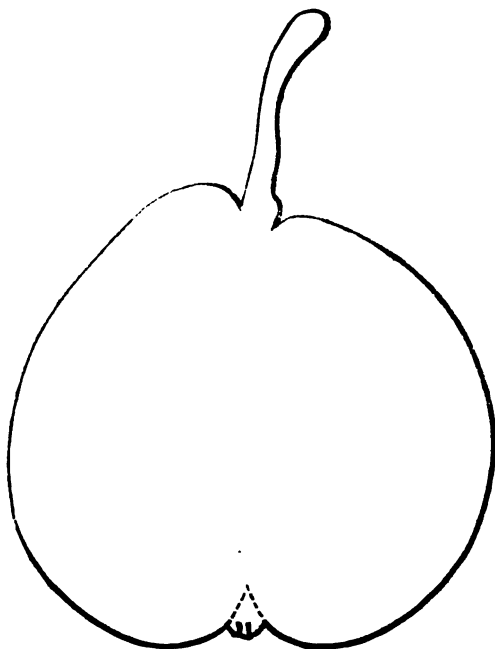


Fig. 14. *Grand Soliel.*

some pyramid on the pear. We have not cultivated it on the quince. Wood dark olive yellow, short jointed, and moderately stout; tree erect and regularly branched.

Size, medium, about three inches long, and nearly three in diameter: *Form*, roundish, largest about the middle, rounding off a little to each end: *Skin*, slightly rough, clear pale cinnamon russet, showing in places a yellow ground, dotted with a few scattered dark russet specks, and tinged with dull red on the sunny side: *Stem*, medium length, about one

inch long, moderately stout, swollen at the base, and obliquely inserted in a small, ribbed and contracted cavity: *Eye*, small, closed, and slightly sunk in a small, round and shallow basin; segments of the calyx, small, incurved: *Flesh*, yellowish, little coarse, buttery, melting and juicy: *Flavor*, rich, and sugary, with a delicious aroma: *Core*, rather large: *Seeds*, medium size, obovate, dark. Ripe in November.

152. BEURRE' STERKMANS.

This is stated to be one of Van Mons's seedlings, (*fig. 15,*) and is a fine pear, of somewhat the general aspect of a Gray Doyenné, but of a darker russet, and rather more rounded.

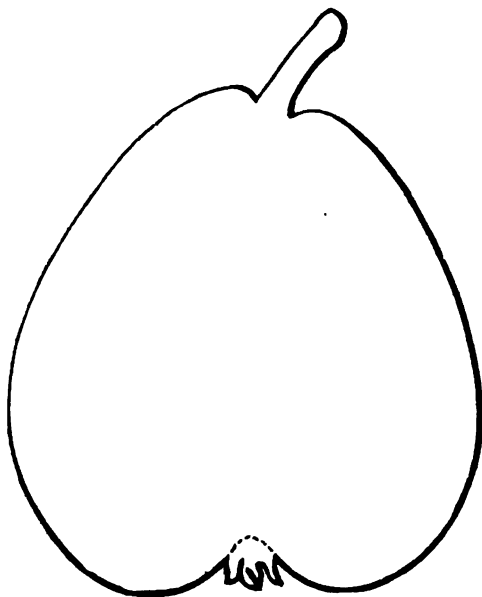


Fig. 15. *Beurré Sterkmans*.

Its season of ripening does not agree with that stated in the Belgian catalogues, viz., January and February; but there can be little doubt we describe the true B. Sterkmans, as it has proved the same in various collections, from various sources. With us it ripened in October and November.

The tree is a vigorous grower, making but few large robust shoots, of a deep reddish brown shade; growth little irregular. It is an abundant bearer.

Size, medium, about three inches long, and two and a half in diameter: *Form*, obtuse pyramidal, very regular, large and full at the crown, narrowing little to the stem end, which is very obtuse: *Skin*, smooth, clear, cinnamon russet, deepening to a reddish shade on the sunny side, and dotted with dark russet specks: *Stem*, short, about half an inch long, stout, and obliquely inserted in a small shallow cavity, highest on one side: *Eye*, medium size, open, and little depressed in a small smoothly formed basin; segments of the calyx, short, sharply pointed, broad, projecting: *Flesh*, yellowish, rather coarse, buttery, melting and juicy: *Flavor*, very rich, sprightly and delicious, with a fine aroma: *Core*, medium size: *Seeds*, medium size, angular, very dark. Ripe in October and November.

153. *BEURRE' CLAIRGEAU. Horticulturist.*

This very large and exceedingly fine pear, (*fig. 16,*) was introduced to the notice of cultivators, by our correspondent, M. Leroy, of Angers. It originated at Nantes, France, and was raised by M. Clairgeau, after whom it has been named. The best idea we can give of it, is to describe it as a huge overgrown specimen of the Gray Doyenné, being more than twice as large as that pear, but having the same handsome pale russet skin, and a flesh fully as melting and high flavored as that fine variety.

Of the habits of this tree, we know but little. We have not fruited it. Our drawing was made from a specimen exhibited last year, by Mr. Fowler, of Salisbury, Mass. It fruited for the first time, we believe, last year. The wood is as yellow as the Bartlett. We believe it succeeds well upon the quince; proves to be a vigorous tree, and an abundant bearer.

Size, very large, about four inches long, and three inches in diameter: *Form*, oblong, or obtuse pyramidal, large at the crown, slightly contracted in the middle, obtuse at the stem,

with a somewhat uneven surface: *Skin*, slightly rough, of a clear cinnamon russet, with numerous darker colored specks, assuming a reddish tint on the sunny side: *Stem*, short, about half an inch long, very stout, fleshy at the base, obliquely inserted, without any cavity, but surrounded by a few uneven

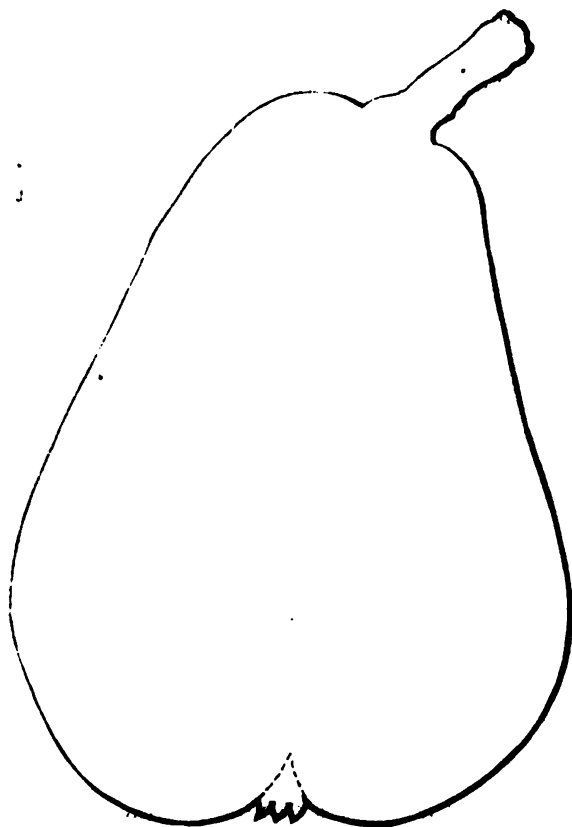


Fig. 16. *Bourré Clairgean*.

projections: *Eye*, small, open, and but slightly depressed in a very shallow basin, somewhat ribbed; segments of the calyx, short, stiff, pointed, complete: *Flesh*, yellowish, coarse, melting and juicy: *Flavor*, vinous, sprightly, perfumed, and excellent: *Core*, medium size: *Seeds*, small, ovate, pointed. Ripe in October and November.

154. POIRE D'ALBRET.

This excellent pear (*fig. 17,*) we have fruited for two years, and we consider it one of the finest autumn varieties. It is not very large, or handsome shaped, but it possesses all the good qualities of the Brown Beurré, and the addition of a richer aroma; the skin is of a clear cinnamon russet.

The tree grows vigorously, somewhat resembling the Brown Beurré. Wood dark. It is a good bearer, and the fruit ripens off for some weeks.

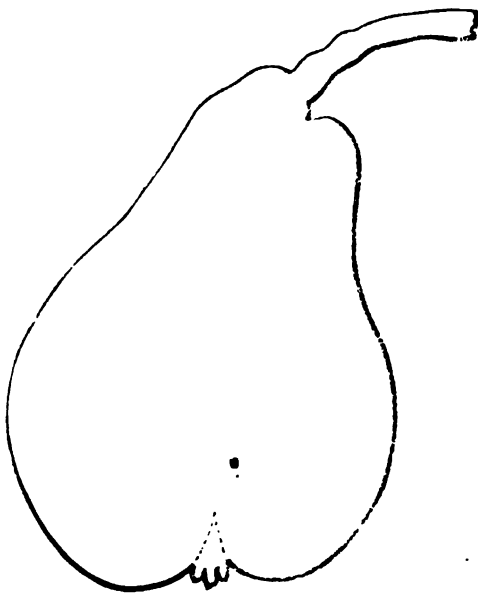


Fig. 17. Poire d'Albret.

We do not find it enumerated in any of the catalogues. We received it from M. Jamin, of Paris.

Size, medium, about three inches long, and two in diameter: *Form*, pyramidal, largest near the crown, contracted about the middle, with a somewhat elongated neck: *Skin*, rough, clear dark cinnamon russet, bronzed on the sunny side, with darker russet specks: *Stem*, medium length, about one inch long, stout, curved, swollen and fleshy at the base, and obliquely attached, with a slight cavity on the lowest

side: *Eye*, medium size, partially open, and very slightly depressed in a small shallow basin; segments of the calyx, short, twisted: *Flesh*, greenish white, coarse, buttery, melting and juicy: *Flavor*, vinous, very rich, and deliciously perfumed: *Core*, small: *Seeds*, small, sharply pointed, dark. Ripe in October.

155. JOSEPHINE DES MALINES.

The reputation which preceded the introduction of Esprin's new pears was so high, that but few of them, which have

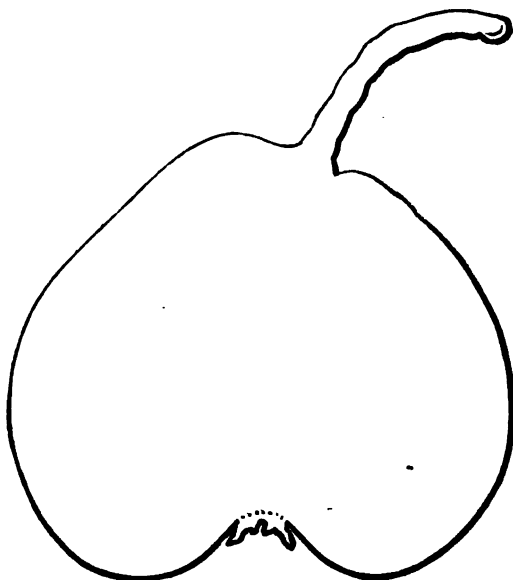


Fig. 18. *Josephine des Malines*.

fruited, have given satisfaction. Perhaps the only one which has fully come up to the imaginary standard, has been the Grand Soliel. Some have been decidedly inferior, while others promise well, though they have not fruited sufficiently to form an accurate opinion.

The Josephine des Malines (*fig. 18*) has been highly praised. Mr. Rivers has given it a high character; and it has been added to many collections. At first, we thought it much overrated, but subsequent trials have induced us to

alter our opinion, and we now class it among our best Winter pears; it is not as rich as the Winter Nelis, or Beurré Lange-lier, but it has a peculiar flavor, a fine flesh, and last year was so very fair that we considered it a desirable acquisition. In the habit of the tree and the appearance of the leaves, it so nearly approaches the Passe Colmar, as to lead to the supposition that it must be a seedling from that pear. The fruit ripens about the same season, and though not so rich as that variety, when well grown, is a most excellent winter fruit.

The tree grows well on the quince, though we think it does better on the pear. It has the peculiarity of bearing upon the extreme ends of the annual shoots. Wood, clear light yellow, short jointed, and only moderately stout.

Size, medium, about two and a half inches long, and two and a half in diameter: *Form*, roundish obovate, regular, large and full at the crown, and tapering to an obtuse point at the stem: *Skin*, fair, smooth, deep rich yellow when mature, somewhat traced with russet, tinged with blush on the sunny side, and thickly covered with prominent russet specks: *Stem*, medium length, about three-quarters of an inch long, stout, straight, little swollen at the base, and obliquely inserted, with scarcely any cavity: *Eye*, medium size, open, and little sunk in a large, round, regular basin; segments of the calyx, long, pointed, twisted, reflexed: *Flesh*, yellowish, fine, melting and juicy: *Flavor*, vinous, sprightly and rich, with a delicate perfume: *Core*, rather large: *Seeds*, medium size, sharply pointed, full, dark brown. Ripe in January and February.

156. BONNE DES ZÉES.

Bonne d'Eze,	}	French and Belgian Catalogues.
Bonne des haies,		

The French and Belgian catalogues do not seem to agree upon the name of this new and superior pear, (*fig. 19*,) and we adopt that under which we received it, and under which it is known in most collections.

It is a most excellent variety. We first saw it in the collection of M. Jamin, in the fall of 1844, and then thought it

equal to any September pear. Last year and year before, we fruited it in our own collection, and it fully comes up to the character we then gave it. Very much resembling the Bartlett, it is greatly superior to that pear, possessing a rich, brisk juice, highly aromatized and delicious. It is also a very

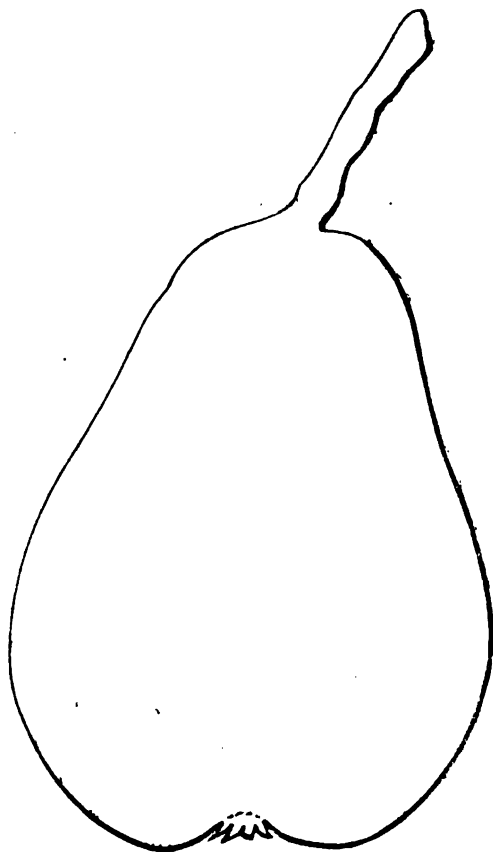


Fig. 19. Bonne des Zees.

beautiful pear, uniform in size, with a bright yellow skin, slightly tinged with red.

The tree is a vigorous grower, making short stocky wood, of a dull yellow hue. It does not succeed on the quince. It bears rather slowly, but produces well, when it once begins to fruit.

Size, large, about three and a half inches long, and two and a half in diameter: *Form*, obtuse pyramidal, full at the crown, blunt at the stem, and enlarged on one side: *Skin*, fair, smooth, yellowish green, becoming lemon yellow when mature, beautifully mottled and clouded with pale red in the sun, somewhat russeted around the crown, and regularly covered with very large russet specks: *Stem*, rather short, about half an inch long, stout, little knobby, straight, and obliquely inserted in a scarcely perceptible cavity, surrounded with knobby projections: *Eye*, medium size, partially closed, and slightly depressed in a broad shallow basin; segments of the calyx, very short: *Flesh*, yellowish white, rather fine, melting, buttery and juicy: *Flavor*, rich, sugary, perfumed, and excellent: *Core*, large: *Seeds*, medium size, obovate, broad. Ripe in September, and keeps some time.

ART. III. *Wool Waste as a Manure.* In a series of Conversational Meetings by the members of the Massachusetts Horticultural Society.

Saturday, March 5, 1853. The President in the chair. The meeting not being a very full one, the discussion of the value of wool waste from factories was taken up at the suggestion of Mr. Dickerman.

MR. BRECK stated that he had had but little experience with it himself, but he had been informed by Mr. Wright of Lowell, that it was a valuable manure. Formerly, the large quantities made at the factories there were thrown into the river, but the people complained of this, and to obviate this he carried it away and put it upon his farm, where he found it highly beneficial to such crops as he tried with it. Subsequently, it became so valuable that they made a charge for it. He pronounced it particularly valuable for potatoes and grass. Mr. Breck had forgotten how he used it, but he thought it was as a compost with other substances.

MR. DICKERMAN said a neighbor of his used a quantity of it upon his orchard, and it killed some of its trees.

MR. W. C. STRONG was informed by Mr. Simpson of Sax-onville, that he had used it on trees and grass, and thought it valuable ; but he had the impression, when used as a top dressing or mulching, that it kept the moisture on the surface, while it was dry beneath. He had used it considerably, and had, he believed, tried many experiments with it.

MR. STICKNEY thought there could be no doubt that all species of woollen were good as a manure. He should suppose the best way to use it was as a compost. He thought it was like many other kinds of manure which had been recommended ; when used in too large quantity it had been injurious. He had used phosphates, boneblack, and leavings of sugar refineries ; but he had found that none of them should be applied alone ; they should be composted, and then their good effects would be seen. If his farm laid within reach of it, he should make good use of it in his compost heap.

MR. DICKERMAN stated it was very oily, and wished to ask if there was any way to get rid of it.

MR. C. M. HOVEY remarked that he knew nothing of its value only what he heard from others, and particularly from M. H. Simpson, Esq., who had used large quantities of it ; from what he had stated he should think it valuable when it could be easily had at a low price. He considered, however, that its chief value was owing to its oiliness, and if it did not contain that it would be of little use ; oil was a nitrogenous substance, and of course useful for all vegetation. In the process of putrefaction it gave off large quantities of ammonia. Mr. Simpson was a most intelligent amateur cultivator, a close observer, and from what he had stated he had no doubt that wool waste was quite too valuable to throw into the river, as had formerly been done at Lowell.

MR. CABOT had no doubt of its value on account of the carbon and nitrogen it contained.

MR. BRECK said Mr. Wright had such success with it on his farm, and that he became so interested in its cultivation,

as to occupy a great portion of his time; and the only alternative was that he must either give it up, or lose his place as agent of one of the extensive factories at Lowell. He consequently relinquished his farm, and had no further opportunity to carry out his experiments.

Some further discussion took place relative to the use of wool waste and manures generally, the substance of which was, that the quicker all ordinary manures were ploughed or dug into the ground the better. The longer they were exposed to the weather the less value they possessed.

The meetings were then adjourned for the season.

ART. IV. *Pomological Gossip.*

NEW VARIETIES OF APPLES. In our last Number we gave an account of a large number of native apples which had been exhibited before the Pennsylvania Horticultural Society, and briefly described in the reports of the Fruit Committee. Since the last report in March, several other varieties have been presented to the Committee, and the following descriptions of them are from the report of the chairman, Dr. Brincklé; some of them appear to be deserving the attention of all cultivators:—

The Adams.—A Pennsylvania seedling, which originated with James Adams, of White Deer Township, Union County, and noticed under the name of Noll's No. 1, in the ad interim report for November last. Large; roundish oblate; faintly mottled and striped with red on a greenish yellow ground; stem half an inch long, and one-ninth to one-sixth of an inch thick; cavity broad, acute; calyx rather large, segments closed; basin wide, moderately deep, plaited; flesh greenish white, of fine texture, rather juicy; flavor pleasant; quality "*very good*." The specimens examined on the eleventh of November, were only regarded as *good*, being somewhat dry and mealy.

The Major.—A native of Pennsylvania. This apple orig-

inated with Major Samuel McMahan, of Chillisquage, Northumberland County. Size large; roundish; red, sometimes blended with yellow on the shaded side; stem variable in length, of medium thickness; cavity rather wide, moderately deep; basin uneven, shallow; flesh yellowish, crisp; flavor pleasant, agreeably saccharine, and resembles, in some measure, that of the Carthouse, to which, however, it is superior; quality "*very good*."—These two were received from H. R. Noll, of Lewisburg, Union County, Pa.

The Hepler.—A seedling, from the garden of Mr. Hepler, of Reading. Size under medium; oblate, inclining to conical; handsome, waxen yellow; stem rather long and slender; cavity wide, deep, acuminate, and considerably russeted; basin contracted, moderately deep, irregular, furrowed; flesh rather dry, but of pleasant flavor; quality "*good*."

The Zieber.—A seedling, from the premises of Mr. Samuel Zieber, of Reading. Size below medium; roundish; waxen yellow, with a striped red cheek and a cicatrix on one side, extending from the base half way to the calyx; stem broken off; cavity slightly russeted, moderately deep, and very narrow, with a small protuberance projecting into it; calyx small; basin narrow, rather deep; flesh somewhat dry, but pleasantly flavored; quality "*good*."

The Neversink.—A seedling, found last autumn, growing among the brush on the side of the Neversink mountain, in Berks County, Pennsylvania. Though not five feet high when discovered, its branches contained two bushels of apples of most attractive appearance. Fruit large; roundish; exterior of an exceedingly beautiful waxen orange yellow color, with a few russet dots, and a delicately striped and richly mottled carmine cheek; stem very short and rather stout; cavity narrow, acuminate, shallow; calyx large; basin deep, rather wide, furrowed; seed greyish yellow, acute-ovate; flesh yellowish, somewhat tough, owing probably to the fruit being much shrivelled; flavor approaching that of the pine apple; quality "*very good*."

The Marks.—A seedling apple, from the premises of Mr. Marks, of Berks County, Pennsylvania. Size medium; round-

ish, tapering slightly to the crown, and somewhat angular; yellowish white, with a few russet dots, and nearly covered with a faint orange blush; stem half an inch long, a twelfth of an inch thick; cavity narrow, deep, acuminate; calyx small, closed; basin narrow, rather deep, slightly russeted; seed yellowish gray; flesh whitish, tender, fine texture; flavor delicately perfumed; quality "*very good*," if not "*best*."

The Pfeiffer.—A seedling, of Spring Township, Berks County, Pennsylvania. Size below medium; roundish; sparsely streaked with red, on a yellowish green ground, on the shaded parts, the streaks being more numerous, and on a fawn colored ground, on the side exposed to the sun; stem broken off in all the specimens, slender, inserted in a narrow, superficial cavity; calyx rather large; basin wide, moderately deep, plaited; specimens evidently unripe. The Pfeiffer is represented as being a very late keeping variety,—the period of maturity extending to July.—The last five received from Charles Kessler, of Reading.

The York Imperial, or *Johnson's Fine Winter*.—This apple is believed to be a native of York County, Pennsylvania. Size rather below medium; truncated-oval, angular; the unexposed side is mottled and striped, so as to present a greyish red aspect on a greenish yellow ground, and on the sunny side the color is a dull crimson; stem short and moderately stout; cavity wide, and rather deep; calyx small, closed, and set in a deep, wide, plaited basin; flesh greenish white, tender, crisp, juicy; flavor pleasant and agreeably saccharine; quality at least "*good*," to many tastes "*very good*."—Received from D. Miller, Jr., of Carlisle.

The Jenkins.—A native apple of Montgomery County, Pennsylvania, which originated with Mr. John M. Jenkins, of Hatfield Township, near Montgomery Square. Fruit small; roundish-ovate; red, interspersed with numerous large white dots, on a yellowish ground; stem more than half an inch long, slender; cavity deep, rather wide, sometimes russeted; calyx closed; basin deep, open, furrowed; core above medium; seed greyish brown, acute-ovate; flesh white, tender, fine texture, juicy; flavor agreeably saccharine, exceed-

ingly pleasant and aromatic; quality "*very good*," if not "*best*." The Jenkins is one of those delicious little apples peculiarly fitted for the table, at evening entertainments. And, in conjunction with the evening party, will probably supplant the Pomme d'Api, on those festive occasions.—Received from P. R. Freas, of Germantown.

ART. V. *The Cultivation of the Camellia.* From the Gardeners' and Farmers' Journal.

BESIDES our own views upon the cultivation of this superb flower, which will be found in a previous volume, we have given the opinions of some of the best practical gardeners in England, upon its proper treatment and cultivation; but as scarcely too much can be said in reference to a plant so indispensable to every fine collection, we present our readers with another article upon their growth, which we find in the *Gardeners' Journal*. It is plain, practical, and to the point, and cannot fail to add to the knowledge we already possess in regard to the cultivation of this fine plant.

The natural order *Camelliæ* comprises only two genera, the *Camellia* and *Thea*—the one as celebrated for the excelling elegance of its foliage and habit of growth, as well as for the exquisite beauty of the shape and coloring of its flowers, as the other is for its commercial importance, and the all but universal adoption by civilized nations of a decoction from its dried leaves as a favorite and exhilarating beverage. My object on the present occasion, is to offer a few remarks on the culture of the camellia, that may at least be useful to the tyro. In most gardens of any pretensions, camellias are more or less extensively cultivated; yet how few collections can one point to as at all approaching to that condition of health and beauty to which this noble plant easily attains with proper management! I have seen many plant establishments in my time, yet I can only call to mind two where camellias were at all made to display their real beauty—the one collec-

tion was planted out in the borders, the other in pots. With the latter collection, I had a practical connection. I consider that in one most important respect, nine-tenths of cultivators fail, namely, in the application of sufficient heat when the plants are making their young wood and setting their buds. I will begin with the plants on the first of May, when, generally speaking, their season of blooming has terminated in the greenhouse or conservatory, from either of which I would remove them at once to a vinery, where the grapes are just thinned, giving them a thorough washing overhead with the syringe; and allowing them to have a temperature varying from 65° to 70° during the night, to 85° during the day; supplying them abundantly with water daily at their roots as well as overhead. They will at once start into rapid growth, and as soon as the young shoots have finished their elongation, (which is easily observed by their developing the terminal leaf of the shoot, close to which the embryo flower-buds appear,) the best season for examining their roots and shifting such as require it has arrived. On turning a plant out of the pot, it is frequently found that there are patches of the ball where the roots are dead, and the soil in a sodden unhealthy state, while in other parts the roots are fresh and vigorous. The former must be carefully removed by the aid of a pointed stick, and if the roots are much decayed, the knife may be used, and the roots pruned; but the latter must be as carefully preserved: and as I have had demonstration of the fact, that camellias may be kept in excellent health and bloomed freely, without giving them large shifts, I do not recommend such, as it makes the plants difficult to move from one house to the other, and has also a tendency to make them develope coarse shoots destitute of bloom. Where high health and abundant bloom is simply the object of the cultivator, I recommend the progression that prevails in the sizes of pots—say, from what is known in some parts of the country as a 12 to an 8—and I would frequently replace the plant even in the same sized pot as that from which it was taken; this should be the case when much of the ball is found in the sodden state above alluded to. The soil in which they

delight is a light turfy loam, to which a fourth part of well-decayed leafmould or peat may with advantage be added, and if river sand can be conveniently got, an eighth of it may also be added. A little charcoal may be used with advantage, but in no case, ought what is known as dung, to be used; it harbors worms and soddens the soil. The pots should be well drained, and the plants firmly potted, and placed where they are to stand, under the shade of the vines, *before* they are watered; but as soon as they are placed, give them a good watering overhead and at the roots, with water of the same temperature as the house at the time, and continue to water overhead daily—say at eight o'clock, morning, and four o'clock, P. M., and at the root when required, and for ten days with pure water only; after which time the roots may be expected to be in vigorous action, and able to digest stronger food, when they may be watered with liquid manure from the drainings of the melon-ground, or with rain-water, which has had two ounces of guano to the gallon, mixed with it the day before using. The use of liquid manure should alternate with pure water, and be discontinued after about six applications, when pure water only should be used, until the same period the following season. If treated as here recommended, the leaves will have acquired a fine dark green color, the young shoots become firm, and the flower-buds prominent and more numerous than required for ultimate blooming by the end of June, when they ought to be thinned to one, or at most two, buds at the termination of each shoot. They may now be watered more sparingly overhead, and by the end of July water overhead may be discontinued, and the plants, when the buds are the size of small peas, removed from the heat to a shady spot out of doors, but by no means where they may be exposed to the drip of trees: the north side of a wall, sufficiently high to *protect them from the direct rays of the sun*, is the best situation; care being taken to place them on inverted pots, or some other means adopted to prevent worms getting into their pots. Here they may stand till they are moved into the greenhouse or conservatory, to take the place of soft-wooded plants in September; and if,

during any period of their autumnal treatment, they are allowed to get THOROUGHLY DRY at the roots, they most likely will suffer to the extent of dropping their blossom buds. Care must also be taken that their drainage is perfect, or else the same result may be expected. When in their winter quarters, they delight in what may be termed a medium temperature—say from 45 to 50 deg. at night, and from 50 to 55 deg. by day. Thus treated, they may be expected to begin blooming by Christmas, and continue to do so till May; and instead of, as may often be seen, producing poor thin blooms, to set off miserable brown foliage, they will produce fine massy blooms, for which their noble dark green foliage forms a magnificent back ground. I have often observed that *C. Chandlerii*, treated in the ordinary way, produces common waratah blooms, without a white marking; whereas, if treated as here recommended, it will invariably produce blooms beautifully marbled with pure white, which, combined with its peculiarly splendid foliage, makes it a most desirable variety. The camellia is less subject to insects of any sort, than most plants, when properly treated; when brown or white scale attacks them—which, under proper treatment, and when kept from infected plants, is rarely the case—they ought to be washed with soap and water and a sponge, taking care to remove every scale, and finishing with a syringing overhead. If you think these remarks worth a place in the Journal, I may, on a future occasion, say something of camellias planted in the borders, and perchance of oranges.

ART. VI. *The New Pompone Chrysanthemums.*

By the EDITOR.

Few flowers have exhibited greater improvement in the same space of time, than the Pompone, or Daisy-flowered Chrysanthemums. It is not long since Mr. Fortune first introduced the original small-flowered variety, or *Chusan Daisy*; yet in a period of six or eight years, more than two

hundred fine seedlings have been produced by the French and Belgian cultivators.

At first they were but little better than the original in shape, but varied in color; successive seedlings became of much better form, till now they are almost as perfect as the ranunculus, and of nearly every shade of color, from white, through the varied shades of yellow and orange, to deep purple. The seedlings of 1852, are a very great improvement on those of 1851, having better petals, and of more delicate colors, the prevailing tints having been heretofore yellow and orange.

A collection of upwards of twenty of the newest flowered with us last year, and we made brief descriptions of them, which we now give, that amateurs and admirers of this fine flower may see the great variety already produced; they are as follows:—

1. **ARIANE**, (Pertuze's.) Straw edged with carmine; flower very double, perfect; colors quite new.

2. **ATTALA**, (Lebois.) Pale rosy lilac and soft white; flower very double; form, cup shaped, admirable.

3. **ATROPOS**, (Bernet.) Crimson maroon, with orange centre; flowers small; beautiful form; very full and double.

4. **BOUQUET PARFAIT**, (Pertuze's.) Color, ash lilac, with a reddish centre; flowers small, expanded, and appearing in enormous bouquets.

5. **CROUSTIGNAC**, (Lebois.) Yellow, striped and shaded with carmine and crimson; flowers small, very full and double; a superb variety.

6. **DAME BLANCHE**, (Lebois.) White as snow; petals fringed like *Camellia fimbriata*, imbricated and beautiful; flowers good size, very double and full.

7. **GRAND SULTAN**, (Pertuze's.) Carmine maroon, a rare color; flowers beautifully formed, very full and double.

8. **GRAZIELLA**, (Lebois.) Blush white; flowers large and cupped; one of the most perfect varieties yet raised.

9. **JASON**, (Lebois.) Deep yellow; flowers large, and in the perfection of imbrication.

10. **JONQUILLE**, (Pertuze's.) Rich jonquil yellow ; flowers cupped ; very perfect and beautiful.

11. **JUSTINE TESSIER**, (Lebois.) Pure white ; flowers small, very compact, imbricated, and the perfection of form.

12. **LAIS**, (Bernet.) True purple ; flowers large, very double, and superb form.

13. **LA ROUSSE**, (Pertuze's.) Red, with a shade of yellow, new colors ; flowers small, of admirable form, compact, superb.

14. **LOUISE PETOU**, (Lebois.) White ; flowers small, flat, double, and appearing in very large bouquets, which have a grand effect.

15. **MADAME JULES D'EVRY**, (Lebois.) White, slightly tinged with blush ; flowers large, very double, cupped, and beautiful.

16. **NELLY**, (Lebois.) Pure white and soft yellow ; flowers large, imbricated, perfect.

17. **NELLY LE CLERCQ**, (Miellez.) Purplish lilac, centre white ; petals slightly fringed and tinged at the ends with white ; superb.

18. **QUASIMODO**, (Lebois.) Yellow, with the reverse of the petals bright crimson, producing a grand effect ; flowers medium size ; petals quilled.

19. **ROSE POMPON**, (Lebois.) Rosy lilac and soft white ; the ends of the petals slightly tipped with white ; flowers small, very double ; petals quilled.

20. **SATHANIEL**, (Lebois.) Rose and white ; flowers large, cupped, very double, and superb.

21. **TACITE'**, (Pertuze's.) Pale rose, tipped with carmine ; flowers small, very double ; beautiful and superb.

22. **ZEPHYR**, (Lebois.) Primrose, with a deeper centre ; flowers quite small ; petals imbricated and slightly fringed ; a charming variety.

23. **AVEOLIFLORUM**, (Lebois.) Clear pale lilac ; centre yellowish lilac ; flowers medium size ; form regular. This is the finest *anemone* flowered variety that has been produced.

24. **JUNON**, (Miellez.) Pale yellow, with orange centre ; flowers large, well shaped, and beautiful. This is also an *anemone*-flowered variety.

The culture of the pompone varieties is the same as for the large flowered ones, which we have given in our previous volumes; but for the information of those who may not have them to refer to, we, in part, repeat here. Cuttings may be put in in May, or the old roots may be divided, leaving only one shoot to each plant, and potted off in small pots, till they get well established, when they should be immediately shifted into a larger size. The only thing important is, never to let them get too *pot-bound*.

Cuttings inserted in sand, or sand and loam, in a slight heat, will root in a few days, and when potted off, should be treated like the suckers.

The soil for the early pottings, may be rather light and sandy, but the later shifts into the flowering pots, should be in good sound loam, mixed with about one-half very old manure and leaf mould.

Plunge the pots all summer, not too crowded together, in a good airy situation, not likely to be damp at the roots, which they dislike. Never allow them to flag for want of water.

In July pinch out the top shoot, which will make them throw out three or four side branches to form a good head. Water with weak manure water or guano, after September, and remove to the house before severe frost.

To have fine heads of bloom, thin out the weak buds.

ART. VII. *The Cultivation and Propagation of the Nepenthes, (or Pitcher plant.)* By JAS. H. CRUISE, Gardener to A. B. Marvin, Esq., Brewster Station, N. Y.

DEAR SIR,—The sickly condition in which I see these curious and most interesting productions of nature, in some places, where an attempt is made by unskilful practitioners to cultivate them, induces me to send you the following brief remarks upon their proper management for publication, through your largely circulated and indispensable source of

information, the *Magazine of Horticulture*, which every lover of fine flowers and fine fruits, ought to read.

The most suitable situation for pitcher plants is an orchid house, in which air and moisture are well attended to, and where the temperature ranges from 55° to 60° at night. Pitcher plants, like epiphytial orchids, suffer greatly from stagnant moisture, more especially when the temperature is allowed to get low. They flourish in a warm, moist atmosphere, which should be kept constantly, but slowly, in motion, and entirely free from sudden changes, or strong currents of cold air. It will, in general, be found that, if pitcher plants are placed next the entrance to the house, where there is a fresh supply of air put in motion every time the door is opened, they will flourish much better there than if placed in a more confined part of the house. They also like a good supply of heat and moisture to their roots. They do not thrive under the close glass cases often employed in their culture; these can only be used with advantage when the temperature and moisture of the atmosphere are subjected to great variations, or when the plants are not well established in their pots, in which cases it is absolutely requisite to keep them quite close.

Pitcher plants grow best potted in an equal mixture of sphagnum (or bog moss,) chopped very small, and the fresh fibre of rough peat, entirely freed from the finer particles. The pots should be well drained, and the material pressed firmly down; they should afterwards be plunged in moss, over a bottom heat of from 70 to 80° , and in an atmosphere well supplied with moisture. The moss in which the pots are plunged should also be well supplied with water.

The different species of *Nepenthes* are increased either by cuttings, layers, or seeds. When the cuttings are employed, the young shoots or offsets, when a few inches in height, which are produced from the base of the old stem, should be selected; they should be potted singly, in rather large pots, well drained and filled with the above mentioned material, plunging them in damp moss, in a bottom heat of 80° , and covering with a bell glass.

When layers are used they are taken off in the ordinary way, using the same kind of material as for cuttings. Seeds offer the best mode of increasing them, when they can be obtained. They should be sown as soon as they are ripe, in pans half filled with broken potsherds, over which a layer of rough sphagnum should be placed, and above that three inches of the same material, chopped quite small; the whole should be surfaced with a little fine peat soil, upon which the seeds should be sown, without covering them. The pots should afterwards be plunged in moss in a bottom heat of 80° , and closely covered with a bell glass. When the plants are large enough to be handled, they should be shifted into pots singly, using the same kind of compost as that in which the seeds were sown; afterwards keep them close and moist until they have recovered from the effects of their removal. When they have become well established in their pots they may be exposed to the full atmosphere of the house; but still with caution, for it is more difficult to keep them in health when they are beginning to form their woody stems, than at any other time. In most cases it will be found that ill health arises from the want of bottom heat. Finally, when the young plants are well established, and in good health, they should be at once transferred, either to pots or boxes, which are sufficiently large to grow them in, without the necessity of shifting them again for years; and, as old plants often die without any apparent cause, it is always desirable to keep a young stock to replace them.

Putnam County, March 9, 1853.

ART. VIII. *Floricultural and Botanical Notices of New and Beautiful Plants, figured in Foreign Periodicals; with descriptions of those introduced to, or originated in, American Collections.*

DEUTZIA GRACILIS.—This lovely species of the *Deutzia* has been beautifully in bloom in our collection. The plants are

yet small, not more than six inches high ; but small as they were, they had one or two wreaths of its snowy flowers. If it prove hardy it will be, undoubtedly, one of the most elegant shrubs which have been added to our collections, not even surpassed by the *Spiræa prunifolia pleno*. It has a very slender habit, well deserving its name.

THE AUGUSTA ROSE.—A reference to our advertising sheet will show that this fine rose is now ready for delivery. We have seen only specimens of the rose, which were brought from Syracuse, and therefore were not in fit condition to form an opinion ; but, so far as we could judge, we consider it quite an improvement upon *Solfitaire*, as it is said to bloom more freely, and to be of a deeper yellow. As soon as we have flowered it in fine condition, we shall notice it again.

203. BEGO'NIA RU'BRO-VE'INA Hook. RED-VEINED BEGONIA.
(*Begoniaceæ.*) Bootan.

A greenhouse or stove plant : growing one foot high ; with striped flowers ; appearing in spring ; increased by cuttings ; grown in loam, leaf mould, and sand. *Bot. Mag.*, 1853, pl. 4659.

Another very beautiful addition to this very fine tribe, received, along with the *B. xanthina*, from Bootan. Its habit is like *B. albo coccinea*, having a short, thick stem, bearing but few leaves ; petioles red ; leaves obliquely ovate, six inches long ; under surface dull purple, and the upper, deep satiny green, glossy, and marked, and dashed with white blotches. The flowers are white, deeply veined with rose. A very desirable species. (*Bot. Mag.*, Jan.)

204. BEGO'NIA THWA'ITESII Hook. MR. THWAITE'S BEGONIA.
(*Begoniaceæ.*) Ceylon.

A stove or greenhouse plant ; growing ten inches high ; with blush flowers ; appearing in summer ; increased by cuttings ; grown in light leafy soil. *Bot. Mag.*, 1853, pl. 4692.

“ Among the many handsome species of this most extensive genus,” says Dr. Hooker, “ I scarcely know one with more richly colored foliage than the present.” The flowers are moderately large, and tinged with pink, “ but they are quite thrown into the back ground by the comparatively large, highly colored coppery leaves, clothed on both surfaces with

the deep red purple velvety hairs, the edge being free from hairs." It grows less than a foot high, and is a singularly beautiful species. It will undoubtedly succeed admirably in our climate as a summer greenhouse plant. (*Bot. Mag.*, Jan.)

205. *AQUILE'GIA KANAORIE'NSIS Jacqem. KANAOR COLUMBINE. (Rununculàcæ.) Kanaor.*

A hardy herbaceous plant; growing a foot high; with pale blue flowers; appearing in summer; increased by seeds and division of the roots; grown in any good soil. *Bot. Mag.*, 1853, pl. 4693.

A species very much resembling the common *A. vulgaris*, differing apparently only in the spurs, which are erect, and not incurved. The whole plant has a glaucous hue, and does not attain a greater height than twelve to fifteen inches. (*Bot. Mag.*, Jan.)

206. *ABE'LIA UNIFLORA Brown. LARGE-FLOWERED ABELIA. (Caprifoliàcæ.) China.*

A half hardy or hardy shrub; growing two feet high; with pink flowers; appearing in June; increased by cuttings and layers; grown in any good soil. *Bot. Mag.*, 1853, pl. 4694.

A very pretty shrub, much resembling the *Weigelia rosea*, but more profuse in its bloom. In England it has proved perfectly hardy, and, as it was found by Mr. Fortune in the north of China, in the same locality as the *Weigelia* and *Forsythia*, no doubt it will be hardy with us; if so, it will be a great acquisition. It forms a spreading, somewhat decumbent shrub, with broad, lanceolate, subcoriaceous, dark green perennial leaves. Flowers white, tinged with blush. (*Bot. Mag.*, Jan.)

207. *GAULTHE'RIA FERRUGINEA Cham et Schlecht. RUSTY GAULTHERIA. (Ericàcæ.) Brazil.*

A greenhouse plant; growing two feet high; with rose colored flowers; appearing in June; increased by cuttings; grown in heath soil. *Bot. Mag.*, 1853, pl. 4697.

"A truly handsome plant," with terminal racemes of beautiful heath-like flowers of a deep rose color. The leaves are small, and dark green. It was raised from seeds received from the Organ mountains, and is a very fine species, well worthy of a place in every collection of choice plants. (*Bot. Mag.*, Feb.)

REVIEWS.

ART. I. *The Cold Grapery, from direct American practice, being a concise and detailed Treatise on the Cultivation of the Exotic Grape Vine, under glass, without artificial heat.* By WILLIAM CHORLTON, gardener to J. C. Green, Esq., Staten Island, N. Y. 1 vol. 12mo., pp. 95: New York, 1853.

THIS is a small and practical treatise on the culture of the vine in cold graperies, the result of some years of successful practice by the author, at Staten Island. It is, he observes in his preface, "the penning down of a few evenings at home, of the scattered and integral portions of his own system;" and he has been "induced to collect into one focus, what practical experience he possesses, hoping that what is recommended, may be of use in assisting the amateurs and inexperienced, and of proving that the exotic grape vine can be successfully grown to perfection, without the aid of artificial heat."

The work is divided into nine chapters, beginning with several remarks upon the cost of houses, the skill necessary to reap success, &c. Successively the whole routine of management is given, such as making borders, planting, pruning, training, &c.

The work is a concise statement of the author's experience, without the least reference to what this cultivator or that cultivator has done; and to a young amateur it will answer a better purpose than a more detailed work, which may quote the opinions of every author, and yet so puzzle him that, though it may be said, "in a multitude of council there is wisdom," he is still unable to use his own judgment in such a multiplicity of advice, and in partially following everybody's directions, he stumbles just upon that track which is sure to lead him astray. Mr. Charlton's ideas upon the formation of borders, are sound, and may be safely fol-

lowed. He denounces, and very justly, the use of "the offal of slaughter-houses in a fresh state," "raw animal carcasses," &c., which he says the very idea of is enough "to nauseate the strongest appetite and forbid the cultivation of this luscious fruit."

We have only one fault to find with the work: the author, in his preface, apologizes for its want of a "lofty phraseology," yet he hopes some "set notions and dogmas," which he notices, may speedily vanish from this country at least, *where the psychological and physiological industry of man are unfettered*, and where we may become a pattern to the world in good culture."

ART. II. *Chemical Field Lectures for Agriculturists.* By DR. JULIUS AUGUSTUS STOCKHARDT. Translated from the German. Edited, with Notes, by J. E. Teschemacher. 1 vol. 12mo., pp. 242. Cambridge, 1853.

No work on agricultural chemistry, since the publication of Liebig, can claim a higher rank than this. It is, in truth, a complete popularization of the whole subject, so little understood by plain practical farmers. It begins at the beginning, and proceeds step by step, making everything as plain as the commonest treatise upon agriculture.

We had marked some passages for extracts, but find our space so much taken up that we must omit them. The facts brought forward by Dr. Stockhardt, are invaluable, and the deductions drawn from them, worthy of serious attention; for although we do not agree with all of them, they still appear plausible enough, and should secure reflection by every inquiring mind. The chapters on draining and guano, are worth alone the price of the book.

Mr. Teschemacher has executed his editorial task with his usual discrimination, and the translation has suffered nothing at his hands. We shall endeavor to refer to the volume again.

MISCELLANEOUS INTELLIGENCE.

ART. I. *General Notices.*

M'GLASHEN'S MODE OF TRANSPLANTING TREES.—We had an opportunity of witnessing the exhibition of a new apparatus for the lifting and removal of trees, invented by Mr. Stewart M'Glashen, sculptor, in this city. The exhibition took place on the grounds of Mr. Craigie Halkett Craigie Inglis, of Cramond, in a park adjoining Cramond-house. The principal improvements effected by the invention are, that the root is not exposed by the removal of the mould from it, thus preventing risk to the vitality of the tree; that no trench requires to be dug round it; that the work can be accomplished with ease and expedition, and at infinitely less expense, and that trees of much greater magnitude can be removed than has hitherto been supposed.

The tree experimented upon was a slender sycamore tree, of 53 feet in height, and 5 feet 4 inches in circumference at the thickest part of the stem. The soil was very damp, from the heavy rain of the previous night.

The first process of Mr. M'Glashen is to lay down a frame of T-iron—in this case 10 feet square. He then takes cutters made of malleable iron, 1 foot broad, and 3 feet deep, or, with the head and neck, $4\frac{1}{2}$ feet. These cutters are driven by a wooden mallet into the soil to the depth of 3 feet all round, and, being inserted sloping inwards, they give to the enclosed mass the form of a square-blunted wedge. A rod of iron is then laid along the top of the four rows of cutters, and extension-rods going across the frame force the heads of the cutters apart as far as possible, and, consequently, cause the points to converge at the bottom. A clasp or gland is then put around the trunk of the tree, with a mat under it to preserve the bark. Two parallel beams are then laid across the frame and fastened to it with chains. The above constitutes the frame to be raised. The means of raising the mass is a carriage (which also serves the purpose of transportation,) consisting of two strong common carts, one at either end, with bolsters raised above the axletree of both, and on which bolsters rest two massive parallel beams secured to them with strong bolts. The height of the beams from the ground is about 6 feet. They, of course, enclose the tree. The process of lifting is exceedingly simple, the whole being accomplished by screw power. The screws are four in number, and so arranged as to make the lift equal. They are made fast to the beams of the frame, and are worked by men standing on planks across the beams of the carriage. The frame and enclosed mass are slowly raised, and the tree with gentle oscillation moves erectly upwards. The tree may, it is evident, be raised without the use of guy ropes, the solid mass of earth effectually balancing the trunk and branches; but they were used on this occasion as an extra precaution. After about twenty minutes' working of the screws, the tree was completely raised from the pit, the operation having been effected in an easy and gradual manner, and amidst tributes of admiration from all around. It was not

the intention to remove the tree experimented upon; but the means of removal being exhibited and explained, all seemed satisfied with the feasibility of the apparatus for the purpose. A strong case was shown for the enclosure of the ball of earth, when the tree is to be conveyed to any distance. In moving, the tree still maintains its erect position. The propelling power, when horses cannot be used, is by a winch in front of the foremost cart, and block and tackle; but when the way is clear and the road good, horses will do the work safely and more expeditiously. The tree is lowered into the pit prepared for it on the same principle.

It is calculated that, in this instance, the weight lifted was 13 or 14 tons; but the inventor and patentee states that, by an enlargement of the apparatus, he could lift almost any tree.

The principal experiment being accomplished, the company were directed to another part of the policies of Cramond-house, where a holly-tree, about 15 feet high, was lifted by four large and broad spades, forming a case to enclose the root. A similar experiment by smaller implements was made on a gooseberry-bush, while some smaller plants were expertly lifted out by two semi-cylindrical spades. In each case the plant was extracted with its native ball of earth. An oblong apparatus has also been invented by Mr. McGlashen for the removal of hedge-rows; and by a similar contrivance he lifts out the mass of earth for insertion of tile-drains, replacing it when the work is accomplished. The implements used in these operations are also patented.—(*Floricultural Cabinet*.)

CYCLAMENS.—The period when you procure the Dutch bulbs is the proper time to obtain these very pretty winter-blooming plants. Good healthy plants procured then will probably have commenced growth, and should be kept rather close for a week, when it will be advisable to examine the state of the roots, and, if well furnished, shift into pots a size larger; otherwise repair the drainage, and defer shifting until the roots indicate a want of pot room; and then a moderate shift only should be given. At this season the plants should be placed near the glass, and should receive a sufficient supply of water to keep the soil in a nice moist, healthy condition. Provided frost is excluded, the temperature in which they are grown is of little consequence, except where plants are wanted in flower, without loss of time; and as the blossoms appear before the foliage is well developed, there will be little difficulty in securing these at any period from November to April. Keeping the plants cool and rather dry will retard their blossoms until March, and placing them in a temperature of from 45° to 50° will bring them into full beauty in a very short time. The plants may be kept in a cold pit, where they will be safe from the frost, until they commence flowering, and then they should be removed to a sitting-room window, where, with care to protect them from currents of cold air, they will be quite at home, and will be beautiful objects for some two months. The best situation, however, for *Cyclamens*, while growing and in flower, is near the glass in a greenhouse or pit, where the temperature may average from 40° to 50°, and where air can be admitted without its passing over the plants, as is the case in most sitting-room windows.

It is a too common practice to treat Cyclamens with neglect directly the beauty of the flowers is over, and to give them little attention, and sometimes hardly a drop of water until the following autumn, when they are wanted in flower. This is the very reverse of what they require, and annually occasions the loss of many bulbs. The plants should be allowed a light, airy situation in the greenhouse or pit, and kept properly supplied with water until May, when they may be removed to a shady situation out of doors; and when the leaves decay, very little water need be given until it is desired to excite the plants into growth; the soil, however, should never be allowed to become quite dry. My own practice is to plunge the pots in coal-ashes during the summer, which, in case of long-continued droughts, are watered, so as to afford a little moisture to the soil in the pots. The plants should be moved to the greenhouse in September, and surface-dressed or potted as may be necessary.—(*Gard. Chronicle*.)

HOW TO PLANT ROSES.—It may not be considered out of place here to offer a few brief remarks on the best system of planting Roses. When they are to be placed out singly, on lawns or in beds, amongst other plants, a hole should be made about eighteen inches deep, and large enough to contain a good-sized wheelbarrowful of compost; two-thirds of this should be turfy loam (if it can be procured from an old pasture it is preferable,) and one-third well-decomposed animal manure. These should be thoroughly mixed together. Should the ground be dry at the time of planting, or if it is done in spring, a liberal watering should be given before the soil is all filled in around the plants, and standards should be securely staked to prevent the winds from moving them, which is very injurious. When beds are to be planted, the ground should be deeply trenched, and afterwards a good dressing of manure should be applied. A small quantity of the compost recommended above may also be added around each plant. As roses seldom thrive well in soils that have previously grown them for a number of years, it is advisable that when old beds are renewed, the soil should be removed to the depth of eighteen inches, and its place supplied with the above mixture. When a piece of ground is set apart for the exclusive cultivation of roses, the most open situation that is available should be selected. If wet, it should be drained. If it is inconvenient to use tiles, a layer of from four to six inches deep of brickbats, or any other coarse material, will answer the purpose. This done, the ground should be trenched as deeply as the nature of the soil will admit of. The beds may then be formed according to taste or circumstances, and the planting may be proceeded with as recommended above. November is the best month for transplanting, but it may be safely done from October to March. It is not advisable to prune at the time of, nor immediately after, planting. The first season the plants should all be headed back to two or three buds from each shoot. This will ensure a vigorous growth.—(*Floricultural Cabinet*.)

PERPETUAL BLOOMING TREE CARNATIONS.—I was pleased with Mr. Burley's remarks on this valuable blooming class of flowers, which appeared in a recent Number. In July, 1851, I purchased half a dozen varieties;

each plant had several side-shoots; these I shortened, and, in a gentle hot-bed, struck them. When rooted, I potted them in a rich loam, and kept them in a cool frame. Early in October, I cut off their leading shoots, and struck them, which I also potted, and kept in a cool frame, with the exception of seven, not having room for them; these I then (October) planted in the open ground, as well as a couple of the first-struck plants; they had not any protection in winter, only secured by a few slender sticks, to prevent their being blown about. In April, I had these taken up and replanted, and trained to a neat wire edging round a circular bed; and from July to the present time (December 10th) they have been in profuse bloom. I had a few planted in the mixed flower-borders trained to neat tube-shaped wire frames, six inches across, two plants to each, and they have also been in beautiful bloom throughout the season. About half the plants I kept for growing in pots I have had in bloom, either outdoors or in the greenhouse, during all the time from last December to the present December, 1852, and now have some plants in bloom, and others with a profusion of buds likely to bloom throughout winter. The other half of the plants in pots I turned out in June, took away the crocks from the ball, replaced them by putting in a portion of soil equal to their bulk, and plunged the pots overhead in a border, close to a brick wall, four feet high, and trained the plants to it. They have bloomed charmingly all the season, and now having taken them into a greenhouse, I have the plants in fine bloom; and though they had rooted through the bottom hole of the pot, their removal has not injured them, but their appearance, now in-doors, has much improved them. This fine class of clove-scented perpetual-flowering Carnations appear to succeed well, either in the open air, greenhouse, sitting-room, stove, frame, or pit. They are all worth the attention of all lovers of flowers.—(*Floricultural Cabinet*.)

PINK BEDS.—I am an old Pink-grower, in a northern county, where the perfect full lacing of every petal is a desideratum. In this particular, we northern florists excel the southern considerably—such are my conclusions from what I have seen at the London exhibitions. Now, in order to have full perfect lacing, let the plants have food to induce it; give the bed about eight inches deep of *old* rotten dung to the same depth of good loam. If you do this at the end of July, let the bed settle, and at the end of August plant in it. In February following, lay three or four inches more dung over the surface of the bed, and just cover it with good loam; the rains will filter through it, and *laced* flowers you will have to perfection. Of course where the buds are too numerous, they are thinned, one only to each stem, and one of these too are cut away. I also grow some of the best in simple compost, in large pots, with success, though never had the blooms as large as the others—but it affords the advantage of getting the blooms forward, or keeping them back, for an exhibition.—(*Id.*)

DAPHNE INDICA RUBRA.—This is a capital plant for the greenhouse, blooming much freer than the white-flowered, and it is of easier culture. I am a Covent-garden Florist, and grow a vast number for the purpose of its

cut flowers. It strikes freely from cuttings of the new shoots, cutting them off with a small portion of the old wood—that is, as close to it as possible, and insert them in silver-sand, sinking the pot in a medium hotbed, and covered with a bell-glass. The readiest method to get blooming plants, is to have a number of the common *Daphne laureola*, in pots, and graft the *D. indica rubra* upon these stocks, doing it on the tongue system. The pots should be placed in gentle bottom heat, and the union is soon effected. The strong plants having bloomed, have all the shoots cut back to about one-half their length, and then are placed in a gentle hotbed-frame, or forcing-house, and when the new shoots are just beginning to push, the plants are repotted, in equal parts of peat and leaf-mould, having a liberal sprinkling of silver-sand. When the shoots have pushed a due length, the ends are stopped, they push again and are stopped; then they are removed into the open air in a sheltered situation, open to the sun, to ripen their wood, and then removed to a shady border till the end of September, when they are taken into a greenhouse, and a portion forced successively as wanted.—(*Floricultural Cabinet*.)

PREPARING PELARGONIUMS FOR CUTTING-DOWN.—This treatment is an essential one in the proper cultivation of this admired flowering-tribe. To do this aright is not generally known, and of course not practised. To continue watering them, as heretofore, up to the time of cutting-down is wrong, and the stems left will rarely break freely, and the entire plant is much injured, and often perishes. When the plants have done blooming, place them in an open situation, but where rain will not fall upon them, and for a fortnight, at least, do not give them any water, or lay them down on their sides, which will answer too. This process tends to lessen the sap and retard its motion, the perspiring and elaborating influences render the shoots in proportion more firm, and the sap becomes duly organized. It is essential always to get the stems well ripened, and then the plants, and cuttings too, will, under due treatment, answer every expectation. After this preparation, cut in the shoots to as few buds as you please, *all* will push shoots—but when the stems are unripe and fleshy, perhaps one bud might push, and even such rarely grow well afterwards. When the ripe wood has been shortened, do not give water for a few days after, then only a little, in four or five days a little more, and the new shoots must break their buds before a regular watering is given. When the shoots are an inch or so long, the plants will require repotting, and the extra new shoots be taken away.—(*Id.*)

CULTURE OF THE ALLAMANDA CATHARTICA.—This fine blooming hot-house climber derives its name from Dr. F. Allamand, formerly a Professor at Leyden. It was introduced into England in 1785; and although it has been so many years, yet it is not usually grown and bloomed as it is capable of, and its merits entitle it to. In my opinion, there is not another stove plant more easy of cultivation, and it has the additional excellence of not being subject to the attacks of any kind of insect. I have had it growing by the side of *Stephanotus floribunda* for some months, a plant which every

grower well knows is very liable to the attacks of the white bug, and we may term it almost a bug-breeder. Its large orange-colored blossoms, combined with a long continuation of bloom, renders it highly attractive and beautiful. It is not so much cultivated as it deserves; it ought to be in every collection of stove plants.

Cuttings from the young wood will strike freely in sand, and the pot plunged to the rim, where there is bottom heat at about seventy degrees; give but little water, as the cuttings are very apt to damp off. Plants struck the early part of summer, will make fine flowering specimens the following season. A cutting of 1851 was potted last May, into a twelve-inch pot, using leaf-mould and loam, in equal portions with one-fourth silver sand. In this compost it grew vigorously; and being trained to a trellis, by the end of July the trellis was completely furnished with young wood, at which time it began to produce flowers at the extremities, and had a succession of bloom for four months from each shoot. Similar to the Oleander, during the period of growth and flowering, it requires water daily, and sometimes twice, according to the temperature of the atmosphere. A little liquid manure, applied occasionally, greatly promotes the size of its fine funnel-shaped bloom, which are from three to four inches in diameter. During winter, it has but little water—just enough to preserve life, and to give it a season of rest.

Early in March, the side shoots are pruned into one eye, and the plant disrooted and repotted into the same sized pot, then plunged in bottom heat until the roots are fairly established. Plants managed in this way will last for many years, in the same sized pots and trellises, and are brought into a flowering state much earlier than they are when planted in a conservatory border, as the roots require to be contracted, in order to have them bloom at an early stage of growth. It grows freely in compost of equal parts of one year old turfy loam, sandy peat, and well-rotted cowdung, with leaf-mould.—(*Floricultural Cabinet*.)

VERONICA ANDERSONI.—Early in spring I purchased a small plant, and as it is a quick grower, I repotted into one twelve inches across, in a compost of equal parts of fresh loam, leaf-mould, and old rotten cowdung, with a sprinkling of bits of charcoal. I placed in a pit-frame till May, and then plunged it up to the rim in the ground in the open garden, where it was duly attended to with water and training. It remained there till the end of September, and then removed into the greenhouse. The plant is erect, four feet high, with side branches from the bottom to the very top, except the last part of the principal leading shoot. Each side shoot has a terminal flowering spike of from three to six inches long, in all fifty-two spikes. The flowers vary in color according to age, being pale blue, rose, and white. It is one of the most ornamental plants for autumn decoration of a greenhouse, conservatory, entrance-hall, or sitting-room. Small plants, too, I find bloom very abundantly. It is a cheap plant, easy to cultivate, and readily increased by cuttings. It is an hybrid raised between *Veronica speciosa* and *Veronica salicifolia*.—(*Id.*)

PLANTING RANUNCULUSES.—The middle of February is universally agreed to be the best time for planting in this country. I have succeeded in blooming them much finer, every year, than any I ever saw elsewhere, and the following method of planting, &c., is what I have practised:

I have grown my collection in the same situation during twelve years. The bed was first made two feet deep, and the substratum is shaley rock. Early in September I have the top foot of soil thrown aside, and the bottom one wheeled entirely away, after which the soil of the top, previously thrown out, is turned in to form the bottom portion; over it I spread about five inches thick of well rotted dung, and have it well dug in. This being completed, I have the top foot of the bed filled up with "one year old turfy-loam," well broken, about four inches of the surface soil sifted finer, to plant the tubers in. In planting I have them five inches apart in drills; after placing them firmly, I carefully cover them, and when the soil is pressed gently with a board over the whole, the crown of each tuber is covered "one inch and a half." If frost occur, I cover the bed with a thick canvas (or a mat will do) during the night. When the tops begin to push through the soil, I carefully assist them, pushing without injuring the leaves. When fully up, I have the surface of the bed stirred over, and this is often repeated afterwards. When the tops are pushed above the soil, I am careful to have the soil pressed closely and firmly around the stalks to keep them steady and from being injured by being too dry. When the season is very dry, I water between the rows on an evening, and use soft pond water. At each watering I give as much as will sink deep, so that such an application supplies moisture for a week or ten days, as the season may be. I shade the bed every mid-day the sun is powerful, for two or three hours. When the bloom is over, and as the leaves of any plant turn yellow, I immediately take such up, not waiting for a general take up, as is often done, to the injury of the early bloomers.—(*Flor. Cab.*)

WINTER BLOOMING FUCHSIAS.—Persons accustomed in the cultivation of pot plants, are aware of the importance of allowing plants to remain a certain period of time in partial repose, and also that before again excited into growth, the young shoots previously made, should be thoroughly ripened. This is simply cause and effect, forced upon the observation of those whose duty it may be to attend to plant cultivation for any length of time. That this period of rest in vegetation is brought about by natural causes is evident; at the same time it must be admitted that plants are materially altered in habit by a long process of cultivation, and when under artificial treatment will, to a limited extent, grow, blossom, and ripen fruit and seed, independent of the influence of the sun's rays. This is exemplified by the many gay flowers that are to be seen in our greenhouses in the dull months of autumn and winter. True it is that many of them are forced into bloom by excited treatment, but this only shows what may be done to gratify the lovers of floral beauty at a season when less of the bright corolla is to be seen. It is an easy matter to mention a number of blooming plants which never, at any season, lose their due share of admiration; still I think the Fuchsia is seldom thought of as a winter flowering plant, if I except

Fuchsia serratifolia, which I have seen in perfection, by a process of treatment so simple as being plunged in the open border (without turning it out of the pot,) allowing it to remain from May to August, or September, and then removing it to the greenhouse, where, with a fine growth of young flowering wood, it soon formed an object of attraction. The other light and dark varieties will, I have found, serve the same purpose by the following treatment:—From amongst those plants that were forced into bloom in the earlier part of the spring, select those that indicate the freest habit of growth; expose them at the base of a south wall, or elsewhere, where they will be sufficiently exposed to the heat of the sun, and gradually withhold water, so as far as possible to prevent further growth and ripen the young shoots. About the end of August they should be potted into smaller sized pots, and after cutting back the young wood a short distance, in accordance with the strength and formation of the plants, they should be plunged into a brisk bottom heat: in a short time they will push freely into growth, and make sufficient roots to enable them to flower profusely. When removed to the greenhouse, they should not be exposed to cold draughts, so that the flowers may expand freely and remain longer on the plants. *Fuchsia serratifolia* seems different in habit from the others; probably it is from *Fuchsia fulgens*.—(*Flor. Cab.*)

CULTIVATION OF HEATHS.—In resuming this subject, we will fulfil our promise by saying a word or two about potting. Scarcely any plant requires more attention in the way of drainage, than the heath. Stagnant water is its destruction; yet the soil in which it grows should never be allowed to get thoroughly dry, as from its nature it becomes, when in that state, very difficult to remoisten. The golden mean must be attained; but if a thorough drainage is well secured, little danger from water, under the most ordinary care, need be apprehended. If heaths are to be kept in good health, and vigorous, they must never be allowed to become pot-bound. Not that there is much danger to a plant in that condition, if under thorough good management; but when it is re-potted, as it must be some time, then there is the most cause of alarm. And the danger arises thus:—The ball will have become very compact, from the mass of roots contained in it; and when removed to a larger pot, with a new stratum of soil between it and the inside of the pot, it is difficult to prevent the water, when given to it, from passing away without moistening the hardened ball. In proceeding with plants that are pot-bound, they must be well prepared some days previously by being thoroughly watered; and to ensure the thorough moistening of the soil, the ball may be perforated in several places. This will give admission to the water, which will gradually percolate through the whole mass. This being accomplished, turn the plant out of its pot; and then, having removed the old drainage, take a pointed stick, and “score” the ball; you will thus divide the coiled roots in numberless places. The plant may now be re-potted, using the soil as moist as possible, and place it in a frame or pit, or where it can be shaded, if necessary, to prevent the necessity of applying water till the wounded roots have pushed new fibres

into the fresh soil, which they will quickly do in myriads from the wounded surfaces of the old roots—at least from those parts where cellular matter is abundant, and those parts are most likely to be where the roots are young, namely, the outside of the ball.—(*Gardeners' and Farmers' Journal*.)

REMOVING LARGE TREES.—Now that this subject is receiving so much attention in the horticultural world, our readers will not be sorry to peruse the following, from our much esteemed correspondent, Mr. D. Gorrie. After expressing a highly favorable opinion of Mr. McGlashan's invention, so far as he had had an opportunity of judging, he proceeds:—"With regard to its general merits as a transplanter, I am, perhaps, not fitted to give an opinion, being, from education and custom, prejudiced (if it is right to employ such a word,) in favor of the plan which my father has always practised, and with much success, namely, not to remove a ball of earth at all, but to work out the earth with a pronged instrument, so as to preserve, if possible, every fibre and rootlet; and when the tree has been removed, to pack the earth carefully and firmly under and between the roots, so as not to leave a single vacancy, spreading out the roots as the work proceeds, to their full extent. I may state that he still adheres to the practice of lightening the heads of transplanted trees, in proportion to the number of root-fibres that may have been inevitably lost—a practice the reverse of what Sir Henry Stewart recommended. By so doing, he never requires to use stakes for newly transplanted trees. He last year transplanted about forty apple trees, from twenty to thirty years old; and though the succeeding spring was excessively dry, only four or five of them failed, and some bore well-swelled fruit. He never entrusts the work to grown-up laborers, as he finds them not careful enough; but procures two boys, and trains them on purpose, prohibiting them from working too fast, and of course bringing men and horses, if required, for removing the trees, when the boys give warning that every root has been made free.—(*Id.*)

ART. II. Domestic Notices.

GLAZING SASHES WITHOUT PUTTY.—In your "Retrospective View of the Progress of Horticulture, for 1852," you speak of a writer in the Philadelphia Florist, who thinks the mode of glazing without puttying the glass, is *new*, and should be called "American." Whether you were the first to adopt it in this country, or not, I cannot say; but this I do know, that it neither originated with you, nor with the writer in the Philadelphia Florist. The mode has been practised, to my knowledge, over twenty years in England, and some of the handsomest hothouses in that country are glazed in that manner. I remember a carpenter making a number of hot-bed sashes and glazing them in this manner, some twenty years ago; but the gardener, for whom they were made, refused to have them, and the carpenter had to take them back and putty in the glass. The system has never

found much favor with builders of hothouses, more from a want of a thorough knowledge of the proper manner of doing it, than anything else; and I have never employed a glazier in this country, to whom I have not had to explain this method of setting glass, before they would commence with the work. The method has some advantages over our common glazing, as you state in your remarks; but it has disadvantages also; and when the rebates are very irregular, as is often the case, in sashes made by machinery, and especially on curvilinear houses, as generally constructed, the work is bad. In fact, the method cannot be adopted, with any chance of making a good job, unless the rebate be regular and well made. I have, the past year, glazed over two hundred sashes, in this manner; and when the work is properly executed, I consider it the best method of setting small sized glass. But the system is neither new, nor American; and I am surprised that neither you, nor the Philadelphia Florist, knew this before.—Yours, truly, R. B. LEUCHARS, *Roxbury, Jan. 26, 1853.*

MR. GORE'S TREATISE ON THE GRAPE, AND THE EDITOR'S REMARKS.—I have been looking over your Magazine for February, to-day, and I must confess to being struck with your review of "Mr. Gore's treatment of his grapes."

Theoretically I can perceive no unsoundness in it, or fault in his treatment—save the topping the branch *at all, until its functions are performed*—for if the reasoning is good for an inch, it is equally good for the entire length; and yet, what seems so perfectly demonstrable and true in theory, may not be sanctioned by experience.

I know your own practice, and that of others, in your treatment, not only of the foreign, but native varieties, is very different; and I would like to know whether you are acquainted with an instance where this has been fully carried out, on either or both kinds, until its results were determined.

I mean by this, the thorough and perfect pruning of your vine in the fall. The summer management, to rubbing off all shoots not required for subsequent spurs or present year's fruit, and dis-budding from those retained for fruit, all eyes you did not design to carry it, allowing the branch, together with the one designed for the subsequent year's fruit, to progress the entire length.

The amount of organized matter or sap, elaborated by the leaves, on such a length of cane and converted into food for fruit, by this operation, as is supposed, must be vastly enhanced; and I am curious to know whether what appears so reasonable and proper on paper, is in the greenhouse and in practice an absurdity.—*Truly yours, CHARLES D. PALMER, Waterville, N. Y., Feb., 1853.*

The remarks of our correspondent are pertinent, but can be readily answered. Custom has so wedded cultivators to one system, that it is hard to get out of the old track. We know that it is the practice to cut the grape to two eyes, or even one, beyond the buds, under artificial culture. Now this is done for two reasons: one to prevent too much shade, and the other, because it is supposed all the sap is directed to the bunch of fruit. Now

we believe that in grapehouses, (not greenhouses, where there are plants,) the best mode is to let as much wood grow as possible, and not run into confusion, and the greater the growth, the better the grapes.

We do not know of one individual who has carried it out fully; but that makes it none the less true. Cultivators are rare who deviate from the old track; but occasionally we find one who does, and with the same success as Mr. Gore.

What is reasonable on paper, we have no doubt, is equally beneficial in practice.—Ed.

ART. III. *Societies.*

HARTFORD COUNTY HORTICULTURAL.

THE annual meeting of this Society was held April 2, and the following gentlemen were chosen as officers for the year:—

President.—Wm. W. Turner.

Vice Presidents.—Henry Mygatt, of Farmington; John M. Niles, of Hartford; Dr. J. S. Butler, of Hartford; Henry W. Terry, of Hartford; Charles L. Porter, of East Hartford; Noah W. Stanley, of New Britain; Wm. G. Comstock, of Weathersfield; Norman Porter, of Berlin; E. A. Holcomb, of Granby.

Recording Secretary.—Dr. Gurdon W. Russell, of Hartford.

Corresponding Secretary.—Thomas R. Dutton, of Hartford.

Treasurer.—Erastus Smith, of Hartford.

Auditor.—H. L. Bidwell, of Hartford.

Standing Committee.—Alfred Smith, Wm. W. Turner, Dr. H. A. Grant, P. D. Stillman, Joseph Winship, George Beach, Jr., Dr. J. L. Comstock, Dr. Gurdon W. Russell, J. H. Goodwin, H. W. Terry, E. A. Whiting, H. L. Bidwell, Charles L. Porter, Henry Affleck, Daniel S. Dewey, John M. Niles, Dr. George B. Hawley, George Affleck, Chas. T. Webster.

WEST CHESTER HORTICULTURAL.

The annual election of officers of the West Chester Horticultural Society, Pennsylvania, was held on the 12th, and the following officers elected:—

President.—John Rutter.

Vice Presidents.—Jas. H. Bull and A. H. Darlington.

Recording Secretary.—Isaac D. Pyle.

Corresponding Secretary.—Joseph P. Wilson.

Treasurer.—John Marshall.

The display of apples was unusually fine, for the season, and shows the progress of Pomology. Joshua Embree exhibited 30 varieties, (and was awarded a premium for the best display;) A. H. Darlington, 16 varieties; Ziba Darlington, 11; J. C. Baldwin, 7; R. Lamborne, 2; R. J. Downing a plate of the celebrated Baldwin, these were very fine; P. Morris & Co.

exhibited a specimen of the Hector apple, a new Chester County seedling; they also exhibited two other seedlings of less merit. John Cope exhibited a plate of very fine pears, the St. Germain, for which a special premium of \$1 was awarded.

PENNSYLVANIA HORTICULTURAL.

The stated meeting of this Society was held on Tuesday evening, April 19th, in the Chinese Saloon,—Dr. W. D. Brincklé, Vice President, in the chair. The display was unusually rich, and the hall crowded with gratified visitors. The extensive tables of the society were completely covered with the many beautiful objects of exhibition. The imposing show of blooming plants was contributed from more than a dozen greenhouses, and presented one of the finest ever seen at a monthly meeting. Robert Buist's foreman brought a great number of interesting and rare specimens, several of which were new and shown for the first time. *Rhododéndron javanicum*, a beautiful species, with flowers of an orange hue; *Gastrolóbbium Drummondii*, *Dendrobium Blandfordianum*, *Zieria trifoliata*, *Tetránthra Heugelii*, and *Ceanóthus rigidum*. Of standard plants, were a splendid specimen of *Pimelæa spectabilis*, measuring about 12 feet in circumference, and 4 feet high, displaying hundreds of trusses of flowers; a large and graceful *Acácia pubescens*; a very fine *Cúpheia platycéntra*; a handsome *Spiræa Reëvesii*, and a dozen of the choicest cinerarias of merit; and the new and beautiful seedling *Camellia*, of N. J. Becar, of N. York, called "Downing." The worthy proprietor of this plant proposes to dispose of the stock by subscription, at \$10 each plant,—the proceeds to go towards procuring a portrait of the late lamented gentleman whose name it bears. Also, a collection of indigenous plants in flower, very interesting. J. F. Knorr's gardener exhibited choice plants, which were not offered in competition. Of those shown for the first time, and new, were *Æschynánthus albidus*, *Azálea Reine des Belges*, and *Delphinium Beauty of Chauronne*, and fine cinerarias, azaleas, *Templetonia glauca*, &c. Caleb Cope's gardener presented new plants for the first time shown in bloom—*Rhododéndron Gibsonii*, *Pimelæa Verschaffeltii*, *Lantana lilacina*, *Mimulus*, species raised from seed presented to the society, from California, by Capt. W. McMichael; and *Caládium discolor*, the first plant seen in bloom; cineraria seedlings; *Azálea Smithii*, a beautiful plant; with many more of the choicest specimens. From Thomas Richardson, of New York, were beautiful plants—*Tropæolum tricolorum*, gracefully trained over wire, in a globular form, in full bloom, a decidedly pretty object; *Pimelæa spectabilis*, and twelve select cinerarias. W. W. Keen's gardener brought twelve handsome plants—*Euphórbia splendens*, calceolarias, *Azálea proclara*, *Erica*, &c. Robert Scott exhibited a large collection, not in competition, in which were some of the choicest roses. Adam Uber, a table of very fine pelargoniums. Benj. Gullis, a large collection of seedling verbenas, &c.; also, twelve beautiful roses. Charles Miller, a large table of calceolarias. Peter Raabe, three large vases of hyacinths, tulips, and Narcissi; also, a fine display of seedling Margarettes, a dwarf apple tree in profuse bloom. Moore & Warnick, Camden, a choice collection of plants. R. Cornelius' gardener had a beautiful *Azálea indica*,

and *Mahernia odorata*. Martin Cundlach, a great number of pansies. William Hobson, cinerarias, pansies, and Auriculas. William Warnick, Camden, pansies. H. Ingersoll's gardener, a specimen of *Dielytra spectabilis*. R. Kilvington, specimens of three native plants, raised from seed brought by Mr. Hermann and Dr. Kern, of Ex. Expedition—*Clatonia perfoliata*—this species is used as a salad. *Pentstemon Mariana* and *Nuttalia* sp. H. C. Hanson—shown for the first time; *Pinguicula lutea* and *Sarracenia Drummondii*. Capt. Marston, a basket of dried Immortelles, &c., very pretty. Designs and bouquets from C. Cope's, R. Cornelius', and others.

On the fruit table were delicious strawberries and figs, from Mr. Cope's conservatories; pears and apples, from Mrs. J. B. Smith; and apples, from Robert Cornelius.

Of vegetables, in Mr. Cornelius' display, were forced potatoes, cucumbers, cauliflowers, &c. In Mr. Cope's, asparagus, peas, French beans, tomatoes, and other esculents.

Premiums awarded on the occasion were:—Roses, for the best twelve, to B. Gulliss. Cinerarias, for the best, and for the second best six, to T. Fairley. Pansies, for the best and second best six, to M. Chundlach. Plants, in pots, for the best twelve, to T. Fairley; for the second best, to T. Meehan, gardener to C. Cope; for the third best, to W. Grassie, gardener to W. W. Keen. Plant, in a pot, for the best grown specimen, (*Pimelæa spectabilis*) to T. Fairley. Indigenous plants, for the best display, to T. Fairley. Plants, shown for the first time, in bloom, a premium of three dollars, to T. Fairley, and another of two dollars, to T. Meehan. Bouquet design, for the best formed of cut flowers, to T. Meghran; for the second best, to T. Meehan. Basket formed of cut flowers, for the best, to T. Meghran; for the second best, to T. Meehan: for the best, formed of indigenous flowers, to T. Meghran: and special premiums of two dollars each, for a beautiful *Tropæolum tricolorum*, to T. Richardson's gardener. To A. Uber, for a display of pelargoniums. To C. Miller, for a display of calceolarias; and of one dollar each, to P. Raabe, for a display of seedling Marguerites; and to B. Gulliss, for a collection of seedling verbenas. The committee notice a collection of *Gnaphaliums*, from Capt. Marston, and two plants, *Pinguicula lutea* and *Sarracenia Drummondii*, shown for the first time, by H. C. Hanson.

Pears, for the best ten specimens, St. Germain, to F. Guoin. Apples, for the best ten, Newtown Pippin, to T. Meghran; and a special premium of two dollars, for a dish of Hovey's seedling strawberries; and another of one dollar, for two varieties of figs, to T. Meehan. Cucumbers, for the best brace; cauliflowers, for the best three heads, and rhubarb, for the best twelve stalks, to T. Meghran. Sea Kale, for the best, and for the second best rhubarb, to T. Meehan, gardener to C. Cope. Display, for the best, by a private gardener, to T. Meghran; for the second best, to T. Meehan.

The committee notice and call the attention of the society to a specimen of hemp, manufactured from the fibre of the okra plant, which appears to possess remarkable strength and fineness of texture. It was shown by Mr. Thomas Dunlap.

ART. IV. *Massachusetts Horticultural Society.*

Saturday, February 5.—Exhibited. FLOWERS: From J. Nugent, a fine specimen of Abby Wilder camellia.

From Hovey & Co., a finely grown plant, in full bloom, of a seedling Azalea, from *A. indica*, somewhat similar to the parent, but of lighter color, more perfect, and larger flower; color, rosy lilac, distinctly marked with purple. Also, cut flowers of *Bignonia venusta*.

FRUIT: From J. Burnett, Southboro', Sweet Russet, and two other varieties, not recognized by the Committee. From J. Stickney, Fortuneé pears. From A. W. Stetson, Catawba grapes, flavor very good; also, fine Baldwin apples. From M. & F. Burr, Murphy apples, very handsome, and the flavor fine.

Feb. 10.—Exhibited. FRUIT: From Capt. Austin, Easter Beurré pears, extra superior—as fine specimens as were ever placed on the Society's table. From D. Roberts, Salem, Winter Nelis, Beurré d'Arenberg, Easter Beurré, Moccas, and Caen du France pears. From A. W. Stetson, Baldwin apples, very handsome.

Feb. 19.—Exhibited. FLOWERS: From Messrs. Hovey, four Seedling Camellias—First, a superb flower, color reddish crimson, inclining to maroon, petals perfectly rose shape, flowers full and double, above the medium size, foliage fine, a superior variety. Second—Color clear rosy crimson, slightly spotted with white, petals fine rose shaped, without the least notch or indenture, a hard bud in the centre indicated that it would not expand freely. Third—Color crimson, edged with bluish maroon, petals rather pointed, and somewhat jagged, quite unique in its character.

From Messrs. Winship, a fine Seedling Camellia, of the character of the Duchesse d'Orleans, but superior to it; petals very perfect, rose-edged; color rose white, striped with pink; very much admired. Also, a fine Seedling Verbena, color rose crimson, forming a good truss of flowers.

From A. Bowditch, fine specimens of Souvenir de Malmaison rose.

FRUIT: From A. W. Stetson, superior Baldwin apples, Catawba and Black Hamburg grapes, cut in September, in excellent state of preservation, and flavor fresh and good.

Feb. 26.—Exhibited. FRUIT: From A. W. Stetson, fine Baldwin apples. From N. Harris, by P. W. Pierce, superior Easter Beurré pears. From Wm. Bacon, Chaumontelle and Belle pears.

March 5.—An adjourned meeting of the Society was held to-day,—the President in the chair.

At the suggestion of the President it was voted to petition the General Court for power to hold real estate of the value of \$100,000.

Voted, That in all cases where medals are awarded, of which the Society has no die, plate may be substituted in their place.

The Executive Committee was authorized to consider the propriety of giving Mr. D. T. Curtis some compensation for his labors in letting the hall, &c. The same Committee was authorized to fix the price for admission to the weekly shows.

Grafts of cherries were presented from Professor Cleaveland of Ohio. The thanks of the Society were voted, and, on motion of C. M. Hovey, the President was authorized to transmit Professor Cleaveland a copy of the *Transactions*.

E. Cleaves, Beverly, and Timo. M'Carthy, Roxbury, were elected members.

Adjourned two weeks.

March 19.—An adjourned meeting of the Society was held to-day,—the President in the chair.

The President presented the Annual Report of Mr. Bond, Treasurer of Mount Auburn Cemetery.

The total sales of lots were	-	-	-	\$9923 47
Deduct annual expense,	-	-	-	1400 00
				<hr/> \$8523 47

One quarter of which, \$2130 99, had been paid over to the Treasurer of the Massachusetts Horticultural Society.

The President presented the statement of Messrs. Ticknor & Co., in reference to the sale of *Transactions*, and the Treasurer was authorized to collect the balance due.

Voted to present the Adrian Horticultural Society, Michigan, with a copy of *Transactions*.

The President read a letter from Elihu Allen in reference to a Seedling apple.

Messrs. Walker, French, King, Teschemacher, and Stetson, were chosen a committee to investigate Mr. Curtis's mode of preserving fruit.

Meeting dissolved.

HORTICULTURAL OPERATIONS

FOR MAY.

FRUIT DEPARTMENT.

APRIL was a very favorable month for all gardening operations; cool, without severe frosts, and moist without heavy rains; a better time for carrying on all the operations of trenching, planting, &c., was never experienced. More, we believe, has been accomplished thus far, where there was work to do, than up to the first of June last year. The season is just about one week earlier than last year. Cherries will be in flower about the 3d, and last year they were in bloom on the 8th. Forsythia viridissima, one of the most splendid early flowering shrubs, now in full bloom, April 28th; last year, May 8th.

GRAPE VINES in the early viney now begin to color; keep up a good temperature; air freely in good weather, and still continue to damp down the house; stop all laterals when they become too crowded. Vines

in the later house, will now be setting their fruit; give less air till the berries are the size of peas, and less water in the house; after that, treat as recommended for the first house. Vines in the cold house will soon show their buds, and will be in flower before the end of the month. Vines in the open ground should soon be tied up neatly to the trellis, top dressed, and put in good order.

PEACH TREES, in pots, now swelling their fruit, should be watered rather liberally, and syringed often to keep down the red spider.

CURRENTS, RASPBERRIES, &c., should be pruned, if not already done, and the ground be manured and dug. Stake the raspberries as early as possible.

STRAWBERRY BEDS should now be put in order; thin out old beds, and dig in manure between the rows. New beds may be planted now.

FRUIT TREES, of all kinds, should be pruned, taking advantage of every opportunity to complete the work, and manure and dig the borders. Espalier or wall trees should be neatly pruned and trained.

PEAR AND APPLE TREES may be grafted any time during the month, with good success.

FLOWER DEPARTMENT.

The warm sunny weather of April has given all indoor plants a rapid start, and unless they are looked after, they will soon become too crowded; advantage therefore should be taken of all spare frame room to get out as early as possible all half-hardy things. Heaths, Cinerarias, Lauristinuses, Roses, Violets, &c., will do much better if at once removed to the latter. This will give room for the Japan Lilies, Gloxinias, Achimenes, Fuchsias, &c., which are to keep up the beauty of the house. Repot all plants that require it, without waiting for any particular season to do the work. The best time is when it is needed.

CAMELLIAS will be growing rapidly, and a slight increase of temperature will greatly benefit them now; keeping them well syringed and watered at the roots. Inarching may still be done.

FUCHSIAS, for fine specimens, will need frequent shifts; do not allow them to get pot-bound.

PELARGONIUMS will soon be in their glory; keep the branches neatly tied out; place in the coolest and most airy place, near the glass as possible; fumigate for the green fly, and water with weak guano. Plants intended for late blooming, may be shifted if they require it.

ROSES, in pots, may be planted out in the ground, the last of the month.

ACHIMENES, GLOXINIAS, &c., should be repotted, and have a good place in a warm, rather close house.

CHRYSTANTHEMUMS should be propagated yet; those well rooted may have a shift into larger pots.

ORANGE TREES should have good treatment now; repot if they need it, and water with liquid manure.

VERONICAS should now have a shift into larger pots; top the shoots and tie them out carefully, if large plants are wanted.

EPACRISSES and **HEATHS** should be put in a frame, to harden off before the hot weather. Repot every plant that needs it. Cuttings may be put in now.

JAPAN LILIES should be shifted as soon as the pots are full of roots.

BEGONIAS should now be placed in the warmest part of the house, in a shady place.

STEPHANOTUS, and other twining plants, should now be shifted into their blooming pots.

PLANTS, of all kinds, intended for decorating the greenhouse in summer, should be looked after and have good treatment; and those intended for the open air, should not be neglected, as is usually the case, after their bloom is over, but receive a due share of attention, preparatory to moving to their summer quarters.

FLOWER GARDEN AND SHRUBBERY.

If advantage has been taken of the good weather, the flower garden and shrubbery will now be in pretty forward order. If not yet attended to, do not neglect it. Our directions last month, need not be repeated; a reference to them will show what ought to have been done.

TULIP BEDS will now be coming forward, and by the 25th of the month will probably be in bloom. Prepare to shade the flowers if they are fine ones, as their beauty is preserved a long time.

CARNATIONS and **PICOTEEES** should be got out as early as possible, as the earlier the stronger they bloom. Sow seeds now for next year's stock.

VERBENAS, **PYRETHRUM**, and other half-hardy plants, may be set out immediately for early bloom; to be succeeded by another planting later.

DAHLIAS will do to plant any time after the 15th of the month.

GLADIOLUSES, **AMARYLLISES**, **TIGER FLOWERS**, &c., may be planted now.

HERBACEOUS PLANTS may yet be removed with good success.

ANNUALS, of all hardy, and half-hardy kinds, may now be planted; tender kinds should be forwarded in frames, as the weather will be too cool to expose them till the last of the month.

VEGETABLE GARDEN.

All early made hotbeds will now need a good lining of fresh manure to keep up the temperature. New ones should also be made for a semiannual crop of such things as melons and cucumbers.

EGG PLANTS and **TOMATOES** may have a shift into larger pots, if fine strong plants are wanted.

SEEDS of all hardy vegetables may be got in as early as possible; squashes, and tender ones later in the month.

SWEET HERBS, of all kinds, may be brought forward in the hotbed, and then put out in the open ground.

Sow lettuce, radishes, &c., for a succession.

CELERY should be planted immediately.

PLANTING seeds of all kinds, should be completed this month.

THE MAGAZINE OF HORTICULTURE.

JUNE, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *Root-grafted versus Stock-grafted Fruit Trees.*

"WILL Mr. Hovey," asks our contemporary, Mr. Barry, "be kind enough to explain to his readers, wherein the superiority of budded or stock-grafted trees lies?" Well, we will. It is a subject upon which we long ago formed an opinion, whether right or wrong; and though aware that new opinions, unless backed up by some experience, are of little weight, we will venture to state our reasons for doubting the value of root-grafted trees.

Our readers are well aware we expressed ourself strongly against root-grafted trees, in our notice of the Western Fruit Growers' Convention, in a former number, (p. 127,) and took that occasion to mention what we had long ago become convinced of, that such trees were very unprofitable and comparatively worthless to the orchardist. Such an opinion has not been hastily formed. We have root-grafted trees ourselves, (only once, however,) and in the course of twelve years, in making up a collection of every variety of apple in the country, have had root-grafted trees from various cultivators. These have passed yearly, we might almost say monthly, under our eye, and have enabled us to form some idea of them, as compared with stock-grafted trees, growing side by side. Our verdict has been, that, though well enough for garden culture, they would never make stout, vigorous and thrifty trees, necessary to form a permanent orchard.

Mr. Barry says he once entertained the same opinion as we do in relation to root-grafting, but does not state why he changed his views. He also says, in quoting the discussion upon the subject before the convention, that he shall give the whole, "and not what one individual said, as our friend Hovey has done." On reading this, we began to think we had given an *exparte* view of the case, but on looking over the extract, we could find no evidence of this; and that our readers may judge for themselves, we copy the same portion of the discussion that Mr. Barry does:—

SWAAR.

Mr. Williams—Has seen a case parallel to the one just mentioned of the Baldwin.

Mr. Brayton—Had seen it bear well, both root and stock-grafted.

C. Bryant—Thinks it should always be worked on very thrifty seedling stocks at standard height.

Mr. Phoenix—Has several root-grafted trees; tops appear stunted; bears well; fruit of very excellent flavor.

A. Bryant—Has several trees budded standard high, very productive, rather deficient in roots; has staked some trees three years; now appear firmly rooted.

Mr. McWhorter moved to recommend as best in quality of fruit, for limited cultivation. Lost.

A. Bryant moved to recommend for general culture, when worked at standard height, on thrifty seedling stocks. Carried unanimously.

Mr. Williams was called on to give his views more fully on the advantages of stock-grafted or budded trees over root-grafted.

He paid attention to it for several years; this year had spent much time in visiting orchards and making observations. He believes that for the orchardist, trees worked standard high, are better worth one dollar a tree, than for them to plant root-grafted trees, receiving them and a dollar with each tree as a gratuity. He found our shy bearers, as Early Harvest, Pryor's Red, &c., to bear well when stock-worked. To the rule he finds general, there may be some exceptions.

Mr. Brayton—With him some varieties bear as well root-grafted as budded; some of our cultivated varieties are more hardy than the average of seedlings; such should be root-grafted.

Mr. McWhorter—Some varieties, that are very hardy on roots, are poor bearers.

Mr. Phoenix—Has paid much attention to the subject under discussion; believes that working scions from nursery trees is bad policy; attributes much of the complaining of unproductiveness to this cause; has facts to sustain him. Believes some varieties will prove quite as productive root-

grafted as budded, and that some seedling stocks would produce unproductive trees.

Recommended raising stocks from seed taken from productive thrifty seedlings. Thinks it is too soon to decide entirely against root-grafting.

Mr. Avery—Had taken buds from nursery trees and had them bear the first year; believes if we take two five-year-old thrifty seedlings, graft one in the root and bud the other, the grafted one would bear as soon as the other. Believes checking the growth by budding on unthrifty seedlings, causes early bearing.

C. R. Overman—Concurs in the opinion just advanced by Mr. Avery.

Mr. Finley—Attributes the tardiness of bearing in root-grafted trees, to their thrifty growth; has seen blossoms on trees first year, grafted, scions from nursery trees; the young tree, however, was not healthy.

Mr. Tolman—Knows of no objection to root-grafted trees. Could not sell budded trees in his vicinity; people object to them, on account of their sprouting from the stock.

Mr. Shaw—Most of those who have taken part in the discussion, admit that budded trees bear best when young; would like to know if they depart from their accustomed ways when old?

C. R. Overman—The only objection he knows of against budded trees, is, that the stocks are frequently allowed to become too large before budding; at the point of union between the bud and stock, the wood becomes defective, and the trees in consequence are short-lived.

Mr. Williams—We plant trees, hoping to eat fruit. I find budded trees to bear good crops six to eight years the soonest. People will soon learn that budded trees are earlier in bearing, and nurserymen will find it to their interest to raise budded trees, though it does cost more than root-grafting.

After some desultory discussion,

Moved that we recommend budding or stock-grafting, as preferable to root-grafting, (on sections of roots) for general use.

Lost by 16 to 14. The subject being new to many, they did not consider themselves prepared to vote.

C. R. Overman—Would root-graft largely of some few varieties.

Perhaps it is *our* turn now to talk about giving the opinion of "one individual." It will be borne in mind that the matter of root and stock-grafting was discussed in regard to about *all the varieties* which came before the convention. The above extract was upon the *Swaar*. Hear what these western gentlemen said about the *BALDWIN* and *BELLFLOWER*, and notice their vote, just the reverse of the *Swaar*.

BALDWIN.

Mr. Brayton—Has seen it bearing well this year; no bitter rot; others that were specked a little.

244 *Root-grafted versus Stock-grafted Fruit Trees.*

Mr. Avery—Bears but little with him.

President—We have had fair fruit, but little of it.

Mr. Phoenix—When root-grafted, would class it with Rhode Island Greening and Roxbury Russet, as worthless.

Mr. McWhorter—Has seen old trees, which were severely injured the past winter.

Mr. Brewster—Has very thrifty nursery trees, two inches in diameter; are hardy.

Mr. Williams—Is acquainted with an orchard near Knoxville, containing root-grafted trees fifteen years old; have never borne well, some of them never an apple; other trees budded from them, in the same orchard, have borne good crops for seven years.

Mr. Loomis—Bears well in Northern Indiana. Passed.

YELLOW BELLFLOWER.

Mr. Edwards—Would inquire whether not more productive budded than root-grafted; had proved so with him.

C. Bryant—Trees are budded, did not bear young, but well, after they commenced; one of the most desirable, in his estimation.

Mr. Williams—Has seen budded and root-grafted trees of same age, together in an orchard; budded trees full of fruit, root-grafts bearing but very little.

Dr. Haskell—Has trees thirteen years old, bearing well this year, for the first time.

Dr. Pennington—Considers it one of the very best; one budded tree worth two root-grafts; one of our hardiest trees, root-grafted, but does not bear as well as when budded.

Mr. Phoenix—Would call it one of the best.

Mr. Avery—In subdividing the best apples into three grades, would call the Yellow Bellflower as one of the third class.

Mr. Bellangee—Was offered \$2 a bushel in Peru market, fall of 1851.

Recommended by a vote of twelve to eleven, (other members not voting,) to be budded or stock-grafted, instead of root-grafted.

Now mark the result—*fourteen* nurserymen out of *thirty*, voted against root-grafted trees. If we consider for one moment that perhaps the aggregate number of root-grafted trees already in the hands of these gentlemen, is ONE MILLION, can we suppose such a vote to be an entirely impartial one? We wish it to be distinctly understood that we believe every individual honest in his opinion; but unknown even to the individual, there would be a hesitancy to vote at once against what he was, and long had been, practising every day; and especially when, as Mr. Phoenix justly says, "it is too soon to decide *entirely* against root-grafting." We quite agree

with Mr. P.; there are some sorts which will, undoubtedly, succeed very well root-grafted, but take the average, and they will fail. We are only surprised that nearly *one-half* of the nurserymen of the West should have the disinterestedness to vote against root-grafting. This act does them credit. We honor them for so prompt an expression of their opinion. If there is a place on the face of the globe where root-grafted trees will do well, it is in Illinois; and the truth of Mr. Williams's expression cannot be shaken, by saying that it is the "abuse of root-grafting" in the West, (as if our western friends were ignoramuses,) which prevents the success of the trees, and that New York root-grafting is quite another thing!

Mr. Barry says that we shall find "no proofs" to suit us in Western New York. He thinks we have heretofore "spoken very favorably of the orchards of New York." We certainly have—finer we never saw; but the orchards we refer to, were set out years before *root-grafting* was ever practised. Orchards, planted thirty years ago, were but few of them set with root-grafted trees. But the explanation of the superiority of stock-grafted trees is what Mr. Barry calls for. He shall have it.

First, let us say a few words in regard to the means we have had of making up our opinion. In 1840 we commenced purchasing apple trees, with a view to forming a collection of *every variety* in the country. We continued to buy, and are still buying when we can get a new kind, and we now have in bearing upwards of one hundred sorts, and about *two hundred* more, which, to use a common phrase, promise well. We had trees from various parts of Western New York and Ohio; nearly all of them were root-grafted; the others, from our own State and from New Jersey, were stock-budded or grafted, but mostly budded, and they now form our finest trees; but of the western ones, about one-half of them look, to this day, in poor condition, not yet able to stand up straight without a stake, and if that is taken away some of them will fall over almost of their own weight. Buds taken from trees the first year after receiving them, and put into good stocks, are *three times as large in five years*. In fact, some of the

former have come to a perfect stand still, and are not worth transferring from the nursery row, where they were put when first received, to gain strength. These are facts, which any one who will take the pains to look, can see at any time.

The explanation we take to be this—that many kinds of apples are naturally weak or slender growers; they are root-grafted, and when transferred to their own roots, which they will be in a year or two, they still remain weak. Mr. Barry knows the theory of this very well. How long is it since he found out the value of a *new fastigiate* or *upright quince*, which was to make the best stock in the world for the pear? it grew so rapidly, propagated so readily, &c. Why the best stock? because, as he said, it imparted vigor to the scion. Mr. Barry knows that cultivators always take thrifty growing camellias for cuttings, upon which to inarch or graft the weaker ones; root-grafted would be no better than cuttings, as the plants would soon establish themselves. Some azaleas, like *Indica variegata*, are hard to keep alive on their own roots, but grafted in the *phœnicea*, they thrive almost as well as the stock. The practice of making standard trees of small shrubs, is on the same principle. A root-graft of a weeping elm would never make a good tree; but a stock-graft soon produces one. The explanation is so simple, that we are surprised at the question. The R. I. Greening and Roxbury Russet are slow-growing, low-headed trees; hence they do not do well root-grafted. The Baldwin, on the contrary, is a very rapid grower, and soon establishes itself and grows away rapidly enough. There is in all seedlings an inherent vigor which many hybrid or choice varieties do not possess. This may be seen wherever seedlings of any kind are grown. The plant once established, and then budded or grafted, receives no check. Root-grafting, by taking the whole of the root, is nothing more than *stock-grafting* at the surface of the ground, and Mr. B. don't certainly intend to call it by any other name. What is meant and what is practised by everybody, is to take a root of a seedling and cut it into pieces, four or six inches long, which are then whip-

grafted ; or pieces of roots of old trees are just as good. It is done to save time and expense. To take up a whole root, then graft it, and set it out again, would be the most expensive way of getting a tree, for nothing would be gained and much lost, as there would be the cost of resetting, and the loss of time in reestablishing the plant.

Our theory therefore is, that a great many varieties of apples, as well as other fruits, are so different in habit from the original species, that they do not grow freely on their own roots, and that root-grafting, from not imparting a rapid growth to the young scion, induces a weakness in the young tree, from which it will not quickly recover ; just as a tree, grown on a poor and stunted soil, makes its first sap-vessels so small and contracted, that no after treatment will enable it to acquire a vigorous condition.

Such is our explanation of the superiority of stock-budded or grafted trees ; and whether our theory is the correct one or not, of the facts there is no doubt. If we are wrong, it will give us pleasure to be set right. Our friend Barry is "very confident" we don't speak from experience. If he means by this, that we have not root-grafted one apple tree to his thousand, he is quite right. We own up. But if he means experience in observing the effects of his own root-grafted trees, as well as those of other cultivators, *we* "are very confident" he is entirely mistaken.

We will mention one particular case. We had some Melon apple trees of Messrs. Elwanger & Barry, in the spring of 1849 or 50. When we received them, we cut off a few scions. The trees were set out carefully, in a good situation, and the scions were grafted into stocks, set in the nursery rows one year. The latter are now more than *twice as large* as the former, with the promise of being *ten times* as large in two years more.

What Mr. Barry says about the western nurserymen using "spongy, pithy wood" for scions, and "abusing root-grafting," we shall turn over to our agreeable friend, Dr. Warder, the champion of all clever fellows.

ART. II. *Remarks on the Art of Improving the Aspect of the Country.* By WILSON FLAGG, Author of "Rural Sketches," &c.

MOST of the published treatises on Landscape Gardening abound in valuable hints on the art of improving the face of the country. But as their primary object is to give rules to the wealthy, for beautifying their estates, the general improvement of the face of the country obtains but a small share of their attention. This latter subject appears to me to be of more importance than the art of landscape gardening, if it be not indeed that art extended so as to apply to the whole territory. There are not many of our inhabitants, whose fortune is sufficient to enable them to lay out whole farms into beautiful gardens. And it is not to be regretted that such ample fortunes are rare, even on this account. There is almost necessarily an air of exclusiveness about a rich man's estate, when highly decorated, which, if very common, would serve to injure the picturesque expression of our scenery. Instead, therefore, of urging the people to give their attention to the art of landscape gardening, in particular, it is better to inquire, how, by the application of the principles of taste to the general laying out of grounds, both with respect to the operations of husbandry, and the planting of trees for shade or ornament, the whole country may be beautified.

It must be evident to all who are conversant with subjects of taste and the beauties of nature, that the happiness and virtues of a people depend, not only on their civil, religious, and political institutions, but likewise on the sources of innocent amusement and recreation, which are opened to them. There is a moral influence derived from landscape, which has always been admitted, but was never yet made a subject of general attention. If our land were reduced to such a state of universal baldness as to afford the young neither temptation nor opportunity to ramble in the fields and woods, an important source of innocent, rational and instructive amusement would be cut off. The love of nature, from which so great

a portion of our happiness is derived, would be repressed; and in proportion as the study of nature serves to elevate the mind, must this deprivation serve to degrade it, and to leave the young to cultivate a taste for low pleasures.

Though it ought not to be expected that every man can afford time and money to make expensive decorations of his grounds, every land owner, from him who owns a rood to him who owns a square mile of territory, may learn to make such improvements as would increase the beauty of the landscape, without any extravagant outlay. And how soon would the general aspect of the country be improved, were every man, when he cut down or planted a tree, or made a path through a field or a wood, to be governed in his operations by correct principles of taste!

The principal ornaments of the face of nature are trees and shrubbery. The art of arranging these in such a manner as to produce the best effect to the eye, and to answer the best purposes of shade and protection from the cold, is an important study for the whole people. It was not until within a few years that public attention has been forcibly directed to the planting of trees. The prim rows of Lombardy poplars that announced the avenue to the country-seat or the farmhouse, are the principal result of the labors of our ancestors in this department of taste and industry. Every old village can exhibit a few magnificent elms; but these are comparatively scarce. The forests were so abundant, on all sides, a century ago, that there was but little necessity of planting trees. When they were to be planted, the inhabitants selected such kinds as should form a contrast to the general appearance of the forests, and pleasantly remind them of cultivation. These considerations may assist us in accounting for the former introduction of the Lombardy poplar over such an extensive portion of our land. These trees are not deserving of our contempt. If they were sufficiently hardy to endure our winters, I know of no other species that would compare with them for shade-trees, in some of the narrow streets and lanes of our villages. The fragrance of their blossoms, when coming forth in the spring; their thick and delight-

fully tremulous foliage, almost resembling life; their attractiveness to the singing birds, who build in their branches more than in any other tree,—all combine to recommend these trees to the horticulturist and the lover of nature. Unfortunately, they are liable to be blasted by the winter, and are seldom wholly covered with living branches.*

It is easy to observe, on taking a casual survey of the most cultivated portion of our landscape, that, while great expense has been lavished upon gravelled walks and boxen borders, upon fences and other architectural ornaments, very little regard has been paid to the general features of one's estate. Our New England prospects exhibit a great deal of that beauty which is derived from the expression of plenty and good husbandry, of order, neatness and thrift. These are indeed the most desirable objects to be attained; but our landscape is unnecessarily deficient in that sort of arrangement of wood, gardens and shrubbery, that harmonious blending of the wild and the cultivated, which constitutes picturesque beauty, and which is so delightful to the eye of a painter. The transitions, from the cultivated tracts to the wild wood and pasture, are too abrupt. There is irregularity enough to please any lover of the grotesque, but almost every scene in which improvement has been attempted, is defective in harmony. Had the same expense which has been lavished on certain formal and inexpressive ornaments, been judiciously used for improving the general features of the landscape, the face of the country would now wear a very different, and a far more beautiful appearance. This is the kind of ornament which ought to be the particular study of the artist in landscape gardening.

In our labors to improve the aspect of the country, the following points are worthy of consideration:—

First; the improvement of our roadsides, by making the streets of ample width, and by judiciously planting them with trees for purposes of ornament and shade.

Second; the felling of the forests and replanting the naked portions of the country in such a manner as to cover the

* The Black Italian aspen is a fine substitute for this old tree, and its spiry top forms a fine relief to masses of round-headed trees.—E.D.

sterile knolls and eminences, and leave the intervening spaces and hollows open for tillage or pasture. All this should be done with reference also to the opening of agreeable prospects, and the concealment of whatever might be disagreeable to the eye.

Third ; a proper admixture of evergreens and deciduous trees, and of foreign and indigenous species, not only on our roadsides and in our gardens, but likewise in our woods and groves, both to add variety to our scenery and to naturalize certain valuable exotics.

Fourth ; a chaste style of embellishment of the enclosures about our dwelling-houses, including the construction of the fences, the planting of trees, flowers and shrubbery, and the general style of laying out the grounds near the house.

As the design of this essay is only to make some general remarks, these points will not be taken up in their order, and only one or two of them will be discussed. It is evident that the proper management of wood is one of the most important objects in the art of improving the landscape. One should endeavor to obtain every advantage that could be afforded by forest, grove, clumps, single trees, or shrubbery ; and great improvements might be made in this respect, to the manifest advantage of the proprietor, in a utilitarian sense. A great portion of our land is necessarily left open for pasturage. For this purpose our barren rocky hills, and smaller knolls and eminences, are of very little value ; but they were formerly covered with wood, which might, without great expense, be restored. For pasturage, the lower part of the slopes is the most useful and profitable, and the tops of the hills should be again covered with trees. In those situations, trees not only beautify the prospect in divers ways, besides covering their baldness, but they likewise improve the climate in their immediate neighborhood. Nothing serves more effectually to check the progress of high winds, than a succession of hills covered with trees. A little hamlet, under the protection of a hilly forest, extending all along its northwestern boundary, is, compared with one that has no such protection, as good as one a whole degree further south. Nature and accident have

provided many such bulwarks, and hundreds of pleasant villages are built under their protection.

Imagine every large hill in the country, whose summit is bleak or barren, to be covered with wood, from the top, half way down to its base. How many homes would be rendered more comfortable during the cold of our winters, by the protection of these forests and groves! Every village that is surrounded by wooded hills is warmer than the same would be without this protection. As my object is to treat the subject chiefly as a matter of taste, I should consider how trees may be planted so as to beautify the country in the highest degree. Fortunately taste and utility may be found hand in hand, in these operations, not in the least interfering with one another. The covering of all the barren hill-tops with woods is the most direct method of improving the beauty of the landscape, as well as that of increasing the agricultural value of the soil. A level plain, covered with grass, is a beautiful object, especially when partly surrounded with wooded eminences. Imagine the opposite of this, and how dull and gloomy does the scene appear! A series of naked hills, especially of a barren and rocky description, always presents a gloomy and desolate appearance. Witness the greater part of the scenery on each side of the turnpike road between Boston and Salem. If we stand on the summit of a naked hill, and look down on a plain covered with wood, the eye derives but little satisfaction from the view. Forests are not associated with the idea of plenty and good husbandry, when they occupy that portion of the land that should be devoted to tillage. But let the same hills be covered with wood, and let the spectator from their heights, through some favorable openings, look down on well-tilled plains, chiefly divested of woods, and devoted to tillage and pasture,—and with what a glow of satisfaction does he contemplate this scene of fertility, from his pleasant arbor on the hills!

It is a beautiful sight to behold herds of cattle grazing on the hills. But if these herds were seen on the lower parts of the slopes, under protection of the woods that crown their

summits, we behold them with still greater satisfaction, from a consciousness that they must enjoy a greater amount of comfort, being under their shelter from the winds in cold weather, and having in them a shady retreat from the sun in the hot days of summer. These reflections always enter into our minds, how little soever we may be aware of it. There are few people who have so little imagination or sensibility, as not to be under the influence of these associations. When we are riding through a country, on a cold day, and behold a flock of sheep under the protection of a wood, on the sunny slope of a hill, we share, through sympathy, a portion of their comfort; and the scene is really more beautiful to our sight, on this account. A feeling of dreariness, on the contrary, comes over the mind, if we see a flock of sheep or cattle on a bleak exposure in cold weather. We perceive but little beauty in such a scene, because it does not impress our minds with agreeable sympathies. The imagination is chilled by the uncomfortable appearance of these harmless creatures. Still more do we sympathize with human beings. A little settlement on an elevated plain, in a bleak exposure, unprotected by woods, and unprovided with shade trees, though the houses be constructed in the most pleasing style, affects the mind with no very agreeable emotions. The bleakness of their situation robs it of that charm, which we perceive in a little settlement, with less architectural beauty, which is comfortably protected by a series of wooded hills. More of the pleasure and displeasure we derive from prospects, come from these reflections than we generally suppose.

All this may properly be termed the moral expression of landscape—a subject that opens a wide field of interesting speculation;—and it must be evident that every little circumstance in the prospects which are constantly opening to our sight, that tends to awaken agreeable emotions and sympathies, is important as a matter of taste. It may, therefore, be regarded as one of the first principles in the art of improving the aspect of the country, that every scene should be made to present the appearance of comfort, with respect both to human beings and the creatures who are under our protection.

Beverly, May, 1853.

We invite the attention of every reader to Mr. Flagg's article, which we are glad to announce is only preliminary to a series illustrating his ideas of rural improvement. He has touched upon just the right point, viz., the improvement of property. Only show that every tree planted, and every dollar paid in embellishing our landscape, is just so much capital well invested, and every individual who now looks upon such expense as so much money wasted in fancy projects, will immediately see how long they have remained ignorant of their true interest. It is just the subject upon which we are anxious to talk with our readers.—ED.

ART. III. *History of the Endicott Pear Tree.* By C. M. ENDICOTT, Salem, Mass.

THERE has been, from time to time, within the last fifty years, considerable discussion in reference to this tree, its origin, its age, whence it sprung, and how it came in its present situation. The family tradition respecting it has been very unceremoniously disregarded and thrust aside, upon mere hypothesis. It has been common to speak of it in this wise: "*if* the family tradition be *correct*,"—"the family *claim*,"—"if imported by the governor,"—and many other similar modes of expressing doubts of the validity of the tradition. The aid of science has been enlisted against it; but we are not aware there exists anything in that quarter which conflicts with the great age which is claimed for it. From whence then does this unwillingness to give credence to the family tradition arise? Is it because it is known to be a seedling? and is there anything so very improbable in the fact that a seedling was imported from England at that early period of the settlement? or would the usual characteristics of a seedling so transplanted from the nurseries of Old to the orchards of New England, be entirely changed by the process? Would "*thorns*" no longer grow upon it? would its "*rude and spiny character*" be altered? We confess not

to have sufficient knowledge of horticulture to answer these questions, and shall therefore proceed at once to give the family tradition, prefacing the account simply with the remark, that respect for the memory and character of our ancestors, (who were an honest, upright, reliable race,—conservative in their feelings, and very Thomases in their natures,) will forbid us to relinquish it, even should it be found to conflict with any *theory* in science. As soon would we believe the “*rude and spiny character*,” which some writers have been fond of ascribing to the old gentleman himself, “*seems to denote*” HIM “*a native of the soil*,” as it would prove his pear tree to have originated in it. We are the more unwilling to relinquish it on such grounds, when we reflect that science has also been arrayed even against sacred history; and with its aid

“Some drill and bore
The solid earth, and from the strata there
Extract a register, by which we learn,
That HE who made it, and revealed its date
To Moses, was mistaken in its age.”

This tree stands, as we suppose is pretty generally known, upon the farm granted Governor Endicott in 1632, in that part of Danvers now known as Danvers Port, and is stated by the family to be a tree of his original orchard which he planted here, and from which the farm, at that early period, derived its name. Its fruit is a variety of the *Bon Chrétien*. The earliest authentic account we have of the name of this place, is in 1643, when the governor, in a letter to Gov. Winthrop, says, “the maid is now going along with us to *Orchard*, where yr sonne shall be heartilie welcome.” This orchard was situated on the southern side of a gentle slope of land, and sheltered by it somewhat from the piercing northerly and northwest winds. The surrounding soil is a light loam, with a substratum of yellow clay. For six consecutive generations, extending over a space of 184 years, say from 1632 to 1816, the governor and his descendants lived upon and cultivated this farm, and which they held solely by the original grant until 1828, a period of 196 years! during which time this tree was never lost sight of by them;—before the eyes of one generation were closed upon it, those of another

succeeded,—thus leaving no opportunity for the usual mists of antiquity to settle down upon its origin and history. Of no spot in this country was the language of the late lamented Lincoln more appropriate than of the orchard farm, when he said, “The first step of civilized man on the New England shore is so recent, that the outline of his earliest foot-print is still uneffaced. Through the antiquity of two centuries, we may view the origin of cultivation almost as distinctly as if we could turn back the wave of improvement which has swelled over the continent, until it again sunk down into the little ripple by the rock of Plymouth.”

There is the same authority for the truth of the tradition respecting this tree, as there is of the site of the first house built here by the governor, and in which he resided; and also of that of his servants and retainers,—the cavities of whose cellars are not yet entirely filled up. The family state that the trees constituting the original orchard here, were imported from England, in June, 1630, and came over in the “*Ara-bella*,” with Gov. Winthrop, or at least, in one of the ships of the fleet which accompanied him. That they were packed in boxes, with earth about them, and were quite small, probably not more than two or three years from the seed, and perhaps considered too young to be grafted previously to leaving England. Now as the grant of this farm was not made until 1632, an interval of two years, it is a fair inference that these trees were first planted at his town residence, where, the Rev. Mr. Higginson in 1629 informs us, “our governor has a store of green peas growing, as good as ever I eat in England,”—where he also “had already planted a vineyard with great hopes of success;—also plums, mulberries, raspberries, currants, chestnuts, filberts, walnuts,” &c., &c. After the grant of his farm, these trees were probably removed to it, but the family have no tradition to this effect; but it is a fact, which goes to corroborate this supposition, that plums, raspberries, black currants, gooseberries, filberts, and grape vines were planted on the grounds immediately surrounding this orchard, and the fruit of their descendants, growing wild and uncultivated, within sight of this venerable

tree, often filled our boyish stomach towards the beginning of this century ; and our boyish ears, too, were often filled with delight as we listened with rapture to our great-grandmother, who entered the family in 1738, as she conversed of the days of "*auld lang syne*," and told over the story of this tree, which she ever uniformly stated to be one of the original trees of the governor's orchard, imported with his dial in 1630. Our great-great-grandfather, Samuel Endicott, born in 1687, only 22 years after the death of his great-grandfather, the governor, and who must have remembered it as early as 1695, always made the same statement, as we have repeatedly heard from the elder members of the family, and particularly from his grandson, our grandfather, who was a married man, with children, in 1766, the year of the old gentleman's death. The last time the writer conversed with him upon the subject, was just after the equinoctial gale of 1815, in which it was sadly shattered, and its recovery was for some time considered doubtful. Standing with him beside it, and looking on the ruins before us, he related, for perhaps the twentieth time, the tradition which he had as repeatedly heard from his grandfather, born, as before stated, only 22 years after the death of the governor. In fact, we have been so accustomed, the last 50 years, to hear it spoken of in the family as the "governor's pear tree," that it never occurred to us its identity could be doubted any more than the farm itself on which it stands.

The Rev. Doct. Bentley, of Salem, than whom no one took a deeper interest in this venerable tree, was accustomed to make it an annual visit for many years of his life, never failing at the same time to pay his respects to the original portrait of the governor,—standing before it, *uncovered*, with all the awe and reverence which a good catholic would manifest before a picture of the virgin. After one of these visits, in 1796, he thus describes it in a letter to the elder Adams:—
"It now bears the name of the *Endicott Pear*, but in the family the *Sugar Pear*. This is the tree which stood not far behind the dial, and has its age reported from it. It is in front of the site of the house, and rises in three trunks from the ground and is considerably high. It is much decayed

within at the bottom, which gives it the appearance of three trunks; but the branches at the top are sound." Again he says, Oct. 10, 1809: "The tree is near the site of the first mansion of the governor, and the land and tree always have been, and now are, the property of his direct heirs, being now in the possession of Mr. John Endicott, nearly four score years of age, and of the sixth generation. To ascertain its age, near it stood a dial, which was fixed upon a pedestal, which the *governor said* bore the age of the tree. That dial has been for years in my possession. It is copper, square, horizontal, three inches, a very fair impression, and in the highest order. It is marked '*William Boyer, London, clock maker, fecit I. 1630 E.*' the initials of the governor's name."

Before taking leave of Mr. Bentley, we will subjoin a copy of a note, highly characteristic of him, written some thirty-five years since:—

"SALEM, 3 OCT., 1818.—Mr. Bentley acknowledges the token from a worthy descendant of the immortal Endicott. Fruit is rich in itself, but when it is the memorial of that virtue which has made our country great, it is from the Tree of Paradise. Pray accept the assurance of inexpressible obligation.

To SAMUEL ENDICOTT, Esq., Salem."

In 1845, Timothy Endicott, of Sterling, in this State, the sixth son and youngest child of the Mr. John Endicott mentioned by Doct. Bentley, gave the writer the following account, which will show the condition of this tree in 1763, now 90 years, which he received from his mother, who entered the family that year. The first autumn after her marriage, she visited this tree, with her husband's father, born in 1713, and he took with him a boy to gather some fruit;—that the tree was then very old and rotten, and in a shattered condition,—that one of the limbs broke while the boy was upon it, and that the old gentleman remarked, "I must have this tree cut down, it is so old and rotten, else some one, by-and-by, will have his neck broken by it."

Notwithstanding the great age it has attained, this tree has had much to contend with during a large portion of it. For upwards of a century its situation has been very exposed in

an open field, without any protection until within the last thirty-five years, during which time it has been protected by a fence. It has been consequently often browsed by cattle and injured by storms;—but such has been its wonderful tenacity of life, that within the last fifty years it has twice arisen, phoenix-like as it were, from its very ashes; namely, after the gales of 1804 and 1815;—after the latter gale it bore no fruit for four or five years, in fact, not until it was stimulated by a large quantity of manure about its roots. The tornado which swept over Danvers some ten years since, did it irreparable injury; twisting off several vigorous limbs, and injuring others; but its appearance and condition have not very materially changed since 1837, and with the following description of it, which we gave at that time, and which will answer pretty nearly for the present, we shall close this communication. By actual admeasurement it was then found to be 18 feet high, and 55 feet in the circumference of its branches. The trunk exhibited all the marks of extreme old age, being entirely hollow and mostly open on the south side, with just sufficient bark to convey sap to the branches. It was 7 feet 4 inches in circumference near the roots, and was divided, as described by Doct. Bentley in 1796, into three parts; two of which were connected to the height of 18 inches, the other was entirely distinct from the ground upwards. There was bark only on the outside of these divisions, until they reached the height of 7 or 8 feet, when they were completely encircled with it and formed distinct limbs, with numerous lateral branches. About thirty-five years since, through the influence, probably, of the large quantity of manure then applied to it, two suckers sprang up from the roots, one on the northeast, and the other on the southwest side. They are now 10 or 12 feet in length, and have been in bearing several years, the fruit being precisely the same as that of the original tree, which, of course, proves it to have been a seedling.

After what is written above, it would seem superfluous to add that this tree is unquestionably the oldest living and fruit bearing tree in this country, of which we have any account, having rounded out, according to the authority stated, a

period of 223 years! Those fruit trees which approach the nearest to it in age, are the pear tree of Gov. Stuyvesant, in New York, which claims to have been imported from Holland, in 1647, seventeen years later;—an apple tree of the Pearmain variety, imported into Connecticut in 1638, by Gov. Geo. Wykcy, and bore fruit the last season, on the "Charter Oak Place," owned by Hon. T. W. Stuart, of Hartford;—the pear tree of Gov. Prince, of the Plymouth Colony,



Fig. 20. The Endicott Pear Tree.

at Chatham, which was brought from England by him, somewhere between the years 1640 and 1645;—the apple tree planted, according to tradition, in 1648, at Marshfield, in this State, by Peregrine White, the first English child born in New England. After these, by dropping down more than a century of time, we find the "Lady Petre" pear tree in Bartram's garden in Philadelphia, which is said to be 116 years of age.

For the annexed representation (*fig. 20*) of the present appearance of the "Endicott Pear Tree," we are indebted to the kind attention of our friend, Samuel P. Fowler, Esq., of

Danvers, whose horticultural knowledge and refined taste are already known to the public. In conclusion we would remark, if any one should be induced to visit this venerable tree, and witness its wasted and time-worn trunk, shorn of its once lofty and towering branches, its shattered and decrepid limbs, its modest and unpretending deportment, bowed almost to the dust by the weight of years, it would disarm him at once of all criticism as to its age or origin. He would readily admit

"Time's eternal wing
Hath around those ruins cast
The dark presence of the past."

ART. IV. *Pomological Gossip.*

NEW VARIETIES OF APPLES.—In our last number we gave some account of several new apples introduced to notice by the Pennsylvania Horticultural Society, and described by the Fruit Committee in their ad-interim reports. We now present their additional report upon a few other new kinds, some of which appear to be desirable acquisitions.

The Freeze and Thaw Apple.—Grown on the farm of his father, in Roxbury Township, Philadelphia County, Pennsylvania. Size medium; conical; profusely striped and mottled with bright red on a yellow ground, with a number of light dots, and frequently one or more white splashes near the base; stem three-fourths of an inch long, slender, inserted in a wide, deep, acuminate cavity, partially russeted; calyx small, closed, set in a moderately wide, superficial, wrinkled basin; flesh of fine texture, but deficient in flavor, and on that account can scarcely be considered of "*good*" quality, if the specimens were cut at the proper time. Mr. Gorgas informs us that it may be left on the tree till it repeatedly freezes and thaws, without sustaining injury: hence the name.—From Mr. John Gorgas, of Delaware.

A Red Apple.—Below medium size, which originated on the premises of Mr. Hains, of Pricetown, Berks County, Pennsylvania. Form roundish oblate; skin thin, striped and

marbled with bright red, and marked with numerous whitish dots near the crown ; stem long, rather slender, inserted in an open, deep cavity ; calyx large, set in a wide, rather deep, slightly plaited basin ; the bright red stripes remain imprinted on the fruit, after the delicate skin has been removed ; the coloring matter penetrating and partially staining the otherwise whitish flesh, which is exceedingly tender and of fine texture ; flavor agreeable ; quality "*very good*."—From Charles Kessler, Esq., of Reading.

The Speckled Oley.—From Oley Township, Berks County, Pennsylvania. This apple is said to be beautiful when in perfection, and usually one-third larger than the specimens sent to us. Size two and a half inches by two and five-eighths ; roundish ; striped and mottled with red on a greenish yellow ground, and thickly covered with large white dots, most of which contain a russet speck in the centre ; stem three-eighths of an inch long, by one-tenth thick, inserted in a very narrow, acute cavity, sometimes russeted ; calyx small, set in a shallow, furrowed basin ; seed long, and of a light yellowish brown color ; flesh rather dry and mealy, but with a pleasant flavor ; being over-ripe, an accurate judgment could not be formed of its quality.—From Charles Kessler.

A Large Greenish Yellow Apple.—With a faint brown cheek ; roundish, inclining to conical, and somewhat angular ; stem short, rather stout, and fleshy at its junction with the branch ; cavity acute, narrow, russeted in rays ; calyx small ; basin moderately deep, not wide, furrowed ; flesh tender, juicy ; as the specimens were over-ripe, the quality could not be accurately ascertained.—From Charles Kessler.

The Boas Apple.—Which was introduced into Oley, about fifty years ago, by the Rev. Mr. Boas, of Reading, from Exeter Township, where it is known as the *Keller*. Medium size ; roundish oblate ; deep crimson in stripes of different hues, with one or more whitish yellow blotches near the base ; sometimes only faintly striped with red on a greenish yellow ground ; stem very short and thick, inserted in a moderately deep, not very wide cavity ; calyx set in a plaited basin, variable in size and form ; sometimes superficial and

wide, sometimes rather deep and narrow; core small; *seed very small*, plump, acuminate, greyish brown; flesh yellowish white, crisp; flavor pleasant; quality "*very good*." Said to be a long keeper.—From Dr. Bertolet, of Oley Township, Berks County, Pennsylvania.

NEW STRAWBERRIES.—Quite a number of new varieties have been recently raised by the English and Continental cultivators, but we believe only a few of them have obtained a high reputation. The British Queen and Keen's Seedling appear yet to stand at the head of all that have been exhibited. Two new sorts, however, were offered for sale last year, one of which, at least, promises to rival, if not excel, the British Queen. These sorts are Nicholson's Ajax and Ruby. We annex the following descriptions of them:—

Ajax.—Fruit of a fine globular shape; color a rich, dark crimson; remarkably juicy, and high flavored. The Ajax was exhibited in Covent Garden last year; nine of the berries weighed 16 oz., and measured *nine* inches in circumference. Fruit often coxcomb shape, but in general form resembles Keen's Seedling. It is a staminate variety.

Ruby.—Color ruby; shape fine oval; size a little less than the "Queen;" of fine flavor, very prolific, and continues bearing much longer than any other variety, fruit having been gathered from it, last season, up to the 25th August. It is a most prolific bearer, and the parent plant, six years old, produced 146 perfect berries last season.

ART. V. *Mitraria coccinea*, its Cultivation and Treatment. By the EDITOR.

Few greenhouse plants of recent introduction possess more attractions than the *Mitraria coccinea*, (*fig. 21.*) With a habit somewhat similar to the fuchsia, but with a tiny and delicate foliage,—with flowers resembling a heath, but four times as large,—and blooming as it does during all the winter and spring months, few can claim a greater share of the amateur's

attention and care. It is a native of Patagonia, and was introduced in 1847, but we believe flowered here, for the first time, last winter. In England it is a hardy plant, and stands out wherever the fuchsia will live in the open air. A brief notice of it will be found in our Vol. for 1849, p. 222.



Fig. 21. *Mitraria coccinea.*

Two years the plants were in our collection before they began to bloom, and we began to fear it would not be so desirable an addition as we had supposed from the representation of the colored drawing; but our fears have been fully dispelled; under the treatment we gave it last year, it began to bloom in January, and is now covered with blossoms and seed-pods. Its cultivation is simple, if the habit and climate of the plant are well known; and as a flower so beautiful, should be in every collection, we give such directions as will enable every amateur to attain a good degree of success.

PROPAGATION.

Young plants are as freely raised from cuttings as the fuchsia; select well-ripened wood of this year's growth, and insert them in sand in a slight bottom heat, similar to that for fuchsias. They will root freely in a short time, and should then be potted off in a light soil, composed of leaf-

mould, loam, and sand. Give them a little shade and heat, till they are well established, when they may have a shift into a larger pot, using the same compost as before, with the addition of a very little old cowdung.

SUMMER TREATMENT.

Keep the plant in a tolerably warm situation in the greenhouse, not fully exposed to the sun, and syringe freely at all times, always remembering that upon a *vigorous* growth and *well-ripened* wood, depends the entire success of the cultivator. In the early part of the season the plants should be topped, in order to have them stout and bushy. When well established, give another shift into a larger pot, watering occasionally with very weak liquid manure or guano. The plants will advance rapidly, and by autumn will attain a good size.

WINTER TREATMENT.

The summer growth being completed, the main object is to thoroughly ripen the wood, for on this a fine bloom wholly depends. If not ripe, it will make no buds, but again commence growing early in the season; but if fully matured, every terminal shoot will be covered with a profusion of its scarlet bells which clothe the plant from top to bottom.

The plants may now be fully exposed to the light in the most airy place in the house; syringing overhead may be discontinued, and water given sparingly at the root. The growth will soon receive a check, and the shoots will become hard and woody, a sure indication of a fine bloom; without this attention, in the place of a fine bloom, only an abundance of new wood will be the result.

During the dark days of November and December, give the plants a light, airy and cool situation; but when the new growth commences, syringing again may be resorted to till the flowers are fully open.

In June, when out of bloom, the plants should be cut in, repotted, and receive the same treatment as the previous year.

ART. VI. *Descriptions of Eighteen New Verbenas.*

By the EDITOR.

THIS beautiful tribe of plants, now one of the most popular in cultivation, is receiving great attention. The production of seedlings is steadily on the increase, and the improvement in the flowers even greater than could be readily supposed. Any ordinary selection of seed will produce hundreds of better varieties than our catalogues contained five or six years ago. But as the standard of merit is raised, it becomes the harder to come up to it; and though so many are annually produced, only a very small number will have good properties enough to deserve a name. The French varieties still maintain a high mark, especially the fancy ones; but in some colors our American seedlings surpass all others that have yet been seen. We hope our amateurs will maintain the position which they now can claim in the production of new varieties.

1. **MACRANTHA**, (*Nivert's*).—Flowers large, fine rose, with a dark centre; petals large, flat, and of good substance; umbels large, circular, and handsome; habit vigorous and good.

2. **MARIANNE**, (*Chauviere's*).—Flowers violet rose, mottled with purple, and crimson eye; petals large, handsome, and of fine form; umbels large and well shaped; habit good.

3. **FADETTE**, (*Mielliez*).—Flowers medium size, blueish white, mottled with lilac, and violet eye; petals large, of good substance; umbels somewhat flattened, but of good shape; habit moderately strong.

4. **GENERAL COURTIGES**.—Flowers large, orange scarlet, with large yellow eye and centre; petals somewhat starry; umbels large, showy, and well shaped; habit vigorous.

5. **CORNELIA**.—Flowers white, with large violet purple centre; petals large and well shaped; umbels large and of fine form; foliage and habit good.

6. **ALBONI**, (*Thibaut's*).—Flowers blush white, with crimson centre; petals medium size, of good form; umbels large, compact, and finely shaped; habit and foliage excellent.

7. **MONTANA.**—Flowers cherry color, with fine large crimson centre; petals medium size, good form; umbels large, circular, and well shaped; habit very vigorous, with good foliage.

8. **PARFUM MADELEINE, (Defosse's.)**—Flowers white, splashed with lavender, and violet centre; petals good form; umbels large and well shaped; habit vigorous and good.

9. **SUMMER GLOW, (Torrey's.)**—Flowers clear deep rose, with a dark ruby crimson centre; petals circular, flat, and of fine substance; umbels very large, moderately compact, circular, and finely shaped; foliage and habit similar to America. This is, without doubt, one of the most superb verbenas ever produced, and at once attracts attention among a collection of all the best sorts yet introduced. It was raised by Dr. Torrey, of Beverly, and kindly presented to Messrs. Hovey.

10. **DAWN OF DAY, (Hovey's.)**—Flowers very rich deep glossy crimson, the finest of this rare color yet raised; petals medium size, flat, circular, and of great substance; umbels large, compact and finely formed; habit and foliage excellent.

11. **PEACH BLOSSOM, (Hovey's.)**—Flowers clear delicate peach color, with deep red eye; petals large, finely formed, and flat; umbels large, full, compact, with fine outline; habit vigorous, and foliage good. This is a new and distinct color.

12. **MAY FLOWER, (Hovey's.)**—Flowers medium size; blush, with deep carmine centre, and light eye; petals medium size, flat, and of good shape; umbels large and compact, forming a perfect ball; habit moderately vigorous, and foliage good.

13. **HYPERION, (Hovey's.)**—Flowers medium size, deep blue, with large distinct white centre; petals good shape and fine substance; umbels medium size, compact, and of handsome shape; habit vigorous and good.

14. **INDIGO, (Hovey's.)**—Flowers large, deep blue, or indigo color; petals large, flat, and well formed; umbels large, moderately compact, with a fine circular outline; habit moderately vigorous and good. This is the darkest verberna yet raised, much darker than Mrs. Mills.

15. **BOUQUET**, (*Hovey's.*)—Flowers very large, of a pale lavender shade; petals large and well formed; umbels enormous size, rather flat, often containing *sixty-five* flowers; habit vigorous, foliage rich and handsome. This not only produces the largest truss of any verberna we ever saw, but is exceedingly fragrant; a bed of it perfumes the garden.

16. **VARIEGATA**, (*Nugent's.*)—Flowers medium size, white, distinctly lined or striped with deep crimson; petals starry and somewhat wavy; umbels large, and of good form; habit vigorous; foliage pubescent and good. This is a desirable acquisition on account of the distinct marking of the colors; it will, we do not doubt, be the parent of many fine seedlings.

17. **CAMBRIDGE LASS**, (*Hovey's.*)—Flowers deep crimson, with purplish eye; petals large, broad, but slightly wavy; umbels large, and fine form; habit and foliage excellent. If the petals of this variety were perfectly flat, it would be one of the finest yet produced; it is a magnificent bedding variety.

18. **TOPSY**, (*Hovey's.*)—Flowers large, deep blue; petals large, little wavy; umbels very large, circular, and well up in the centre; habit very vigorous; similar to Mrs. Mills, but a much better grower.

Other new ones, of great reputation, are Mad. Lemounier, Eleonora, Alfred (*Chauviere's.*) Etoile de Venus, &c., &c.

ART. VII. *Floricultural and Botanical Notices of New and Beautiful Plants, figured in Foreign Periodicals; with descriptions of those introduced to, or originated in, American Collections.*

ABRONIA UMBELLATA.—This very beautiful plant is now flowering in our collection. It is a native of California, and was found near Monterey, by Mr. Hartweg, and sent to the Horticultural Society of London, in 1847. It is a trailing plant, with somewhat the habit of a verberna, but with small ovate, fleshy, succulent leaves, covered with viscose hairs.

The flowers appear in umbels, an inch or more in diameter, compact, circular, formed of numerous tubular flowers, of a pale violet shade, and supported on long peduncles; they also exhale a sweet odor at night. The limb of the flower is cut into five segments, each of which is regularly biparted.

In England it has not succeeded well as a bedding plant, on account of the humidity of the climate; but here, under our hot sun, it will no doubt be one of the most charming plants for that purpose yet introduced. It is easily raised from seeds, cuttings, or layers, in the same way as the ver-bena.

It is also a fine plant for baskets, its long trailing stems being covered with blossoms.

GARDENIA STANLEYANA.—This superb species, so rarely seen in fine condition, is now showing several of its large, trumpet-shaped and elegant colored flowers, which will remain in beauty two or three weeks. Some account will be found in a previous volume, (XV, p. 530) of a plant we saw in full bloom in 1849, in the collection of D. F. Manice, Esq., L. I.; since then we have never seen it. We know of few more noble plants than this.

OLDENLANDIA DEPPEI.—Some time since, we saw a brief notice of this plant in the *Philadelphia Florist*, by Mr. Meehan, gardener to C. Cope, Esq., in whose collection it flowered. It is a most desirable plant, as it blooms the whole year through. A single specimen in our collection has been in full bloom ever since last October, and is still throwing up an abundance of buds. The flowers are small and white, but the clusters are large and completely cover the plant; the foliage is small, neat, and very dark green, and the habit erect and symmetrical. Either for cutting for bouquets, or for decorating the greenhouse, it is a desirable and beautiful addition to any collection.

ALLAMANDA NERIIFOLIA.—This is a new and fine species of this showy family of summer blooming climbers. The flowers are not so large as the *grandiflora* or *Schottii*, but the plant possesses the valuable habit of flowering very small, and of being half shrubby instead of climbing like the pre-

vious species. It is a profuse bloomer, and retains its foliage all winter.

LANTANA AMERICANA.—A new and very fine addition has been made to this pretty tribe in the *L. americana*. In habit it is nearly as slender and spreading as the *L. Sellowii*, but the flowers are of a fine deep orange yellow, and are as freely produced as upon the *L. Sellowii*. As a bedding species it will form a fine contrast with *L. lilacina*, or *Sellowii*, or even with the white or blue verbenas. It is a very fine acquisition.

NEW FUCHSIAS.—The two new fuchsias, *Roi des Fuchsias* and *Ochroleuca*, raised by M. Mieliez, have just flowered, and are the finest of the large blooming kinds we have yet seen. The flowers of the first are exceedingly large, with a dark rose corolla, and flesh-colored orange sepals, tipped with green; *ochroleuca* is similar in size, but with a crimson corolla and straw white sepals. They are magnificent additions to any collection.

NEW VARIETY OF SALVIA.—A very beautiful variety of the *Salvia* has been raised by Mr. Lynes, gardener to G. Brooks, Esq., Medford. In habit it is similar to *coccinea*, but the flowers are of a pale rosy crimson, and produced in handsome spikes. We are unacquainted with any similar variety, and if it should prove to be new, we would propose the name of *Salvia Lynesiana*.

NEW TREE PÆONIES.—Van Houtte, of Belgium, offers for sale three new and fine varieties of this superb shrub. They are as follows:—

Souvenir de Madame Knorr, flowers very large and very double, white suffused with rose.

Charles Rogier, silky white, centre petals striped and mottled with rose, like a carnation.

Remembrance of A. J. Downing, fine silky rose, brilliant and very double.

ODIER'S NEW GERANIUMS.—M. J. Odier, of Paris, has created quite a *furor* among fanciers of this beautiful tribe, by the production of several seedlings of new and unsurpassed elegance, quite different from any we already possess, being apparently between the *show* and *fancy* kinds, having large

flowers, but with a variety of spots and pencillings not yet seen in any previous seedlings. No descriptions accompany the names which we give below, but they are superbly represented in two colored plates, which have been forwarded to us. They are as follows :—

Auguste Meillez, Colonel Foissy, Etoile des Jardins, General Eugene Cavaignac, Glorie de Bellevue, Gustave Odier, James Odier, Jacques Duval, Mad. de Lamoriciere, and Triumph de la Tour.

NEW VARIETY OF TROPÆOLUM. When in Baltimore a few weeks ago, we noticed a new and very pretty seedling *Tropæolum*, raised by Mr. Feast, and called *T. pulcherrima*. In habit it resembles *T. Lobbianum*, but the flowers, instead of being scarlet, are of a deep rich orange yellow. It is a remarkably free bloomer, and is a pretty addition to the limited number of twining plants.

SEEDLING CINERARIAS.—We recently saw in the collection of Thos. Richardson, Esq., an enterprising and zealous amateur of New York, several very fine seedling cinerarias, quite equal to some of the English prize sorts. It is a favorite flower with Mr. Richardson, and he has taken especial pains in raising his own seed, from which he has produced the best sorts. The names of some of the best are, Kossuth, Climax, Model, Richardson's Annie, Star of the West, Captivation, &c. We urged Mr. Richardson to introduce such fine kinds into the trade, through the hands of some nurserymen. The plants were well grown and finely bloomed.

208. CEREUS MACDONALDIE Hooker. MRS. MACDONALD'S GREAT NIGHT FLOWERING CEREUS. (Cactaceæ.) Honduras.

A greenhouse plant; growing six feet high; with white flowers; appearing in summer; increased by cuttings; grown in rich sandy loam. Bot. Mag., 1853, pl. 4707.

"Of the many floral spectacles that have gratified lovers of horticulture at the Royal Gardens of Kew, of late years, few have been more striking than this." It is the largest of all the Cacti, being even larger than the famous Victoria lily. It is planted at the back of the cactus house, and trained against the wall; it first showed symptoms of blossoming in July, 1851. "A casual observer might have passed the plant,

in this state, as an unusually large-flowered 'Night blooming Cereus,' but the slightest inspection of the stem and branches, and the different nature of the flower-bud, the patent sepals, and, above all, the great size of the flowers, *fourteen inches in diameter*, from tip to tip of the calyx sepals, and fourteen inches long from the base of the calyx to the tip of the stigma, all indicate a most distinct species," heretofore undeveloped.

It is a most rapid and vigorous grower,—a single cutting received from Honduras, soon covering the back wall of a rather lofty house; the branches vary in size, but are not generally larger than the little finger, and in shape like *C. grandiflora*; the immense flowers look as if they could not belong to such meager branches. In color of the petals and sepals it resembles the *C. grandiflora*. This is a most magnificent species, and will be sought after by every lover of this grotesque and showy tribe.—(*Bot. Mag.*, April.)

209. *CROSSA'NDRA FLA'VA* Hook. YELLOW-FLOWERED CROSSANDRA. (Acanthaceæ.) Sierra Leone.

A stove plant; growing six inches high; with yellow flowers; appearing in spring; increased by cuttings; grown in leaf-mould, peat and sand. *Bot. Mag.*, 1853, pl. 4710.

An acanthaceous plant, with large, long, wavy foliage, and terminal spikes of bright yellow flowers. A pretty addition to stove collections, but requiring a high temperature to bloom it in perfection.—(*Bot. Mag.*, April.)

MISCELLANEOUS INTELLIGENCE.

ART. I. General Notices.

EFFECTS OF THE LATE WINTER ON CONIFERÆ.—The following notes are intended to show the effect which the late severe winter has had in Messrs. P. Lawson & Sons' nursery here. In the pinetum there were no coverings of any sort given to the plants, in order to test how far they might be calculated to stand our climate, and these results now appear:—

1st.—*Cupressineæ*: *Juniperus drupacea*, *macrocarpa*, *rufescens*, *recurva*, *squamata*, *chinensis* (male and female,) *excelsa*, *tetragona*, *dolobrata*, *sphærica*, are not the least injured; but *Bermudiana*, *flaccida*, *mexicana*, *sophora*,

are all killed. *Widdringtonia juniperoides*, *cupressoides* much injured, but not killed. *Libocedrus Doniana*, one plant much injured; but another, shaded from the sun's rays by a bush, quite fresh. *L. tetragona* and *chilensis* both quite fresh. *Biota pendula*, *Thunopsis dolabrata*, *Cupressus funebris*, *Retmuspora squainosa* and *ericoides*, *Taxodium heterophyllum* and *ascendens*, *Cryptomeria japonica*, *Cupressus macrocarpa*, sp. from Mexico, sp. from Simlah, all quite healthy and fresh. *Cupressus glauca* injured, but not killed. *Cupressus Goveniana*, *Lindleyi*, *thurifera*, completely killed down to the roots.

2nd.—*Abietinea*: *Pinus Brunoniana*, *nobilis*, *religiosa*, *Nordmani*, *cephalonica*, *amabilis*, *grandis*, *Pindrow*, *Webbiana*, *Pinsapo*, *Menziesi*, *orientalis*, *obovata*, *Kutro*, *ajomensis*, *Techugatsgoi*, are all fresh and healthy. *P. Brunoniana* evidently gets hardier as it grows older. Plants one and two years old we have several times had killed; those now reported on are four years old. *Pinus Douglassi*, from home-saved seed, are some of them killed, others much injured, while others raised from imported seeds, growing in the same place are fresh; the foliage of the latter is of a deeper green, broader, and with more substance. *Pinus Jezænsis*, in a moist situation, is killed; but similar plants, in a dry position, are only partially injured; the plants are only two years old, and it is very probable that, like *P. Brunoniana*, they may get hardy as they grow older. All the species of *Larix* and *Cedrus* have escaped uninjured; the newest one, *Larix Griffithi*, (Hooker,) seems quite hardy. *Pinus excelsa*, *monticola*, *Ayacahuite*, *Lambertiana*, *parviflora*, *rudis*, *Hartwegi*, *Russelliana*, *macrophylla*, *Montezuma*, *occidentalis*, *Sinensis*, *Sabiniana*, *Gerardiana*, *Coulteri*, *muricata*, *radiata*, *tuberculata*, *insignis*, *Benthamiana*, *ponderosa*, *Bungeana*, *contorta*, *Massoniana*, *Cembroides*, *Fremontiana*, *osteosperma*—all quite fresh and uninjured. *Pinus occarpa*, *apulcensis*, *tenuifolia*, *leiophylla*, *filifolia*, *patula*, *australis*—either completely killed, or so much injured that there is little hopes of their doing any good. *Cunninghamia sinensis*, in the open borders, killed; plants against an east wall quite fresh. *Sequoia sempervirens*, *gigantea*—both considerably injured in last year's growth, the foliage much browned and scorched; but the plants are all giving indication of growth, and likely in a few weeks to be quite green.

3rd.—*Podocarpeæ*: *Podocarpus pungens*, Killed, and several other large-leaved species of this tribe. *Podocarpus Kordiana*, quite hardy in the open border. *Dacrydium cupressinum*, *Franklini*—both growing against a south wall.

4th.—*Taxineæ*: *Phyllocladus trichomanoides*—quite fresh against a south wall. *Cephalotaxus drupacea*, *tardiva*, *Fortuni*, *Torreya nucifera*—have all stood well, and are likely to prove fine hardy trees. *Ephedra vulgaris*, *altissima*, *macrostachya*—are all fresh.

In the general collection of trees and shrubs, all the new *Rhododendrons* sent from Sikkim, by Dr. Hooker, were left unprotected, and they appear none the worse, *R. Dalhousiae* and *R. argenteum* excepted. *Berberis*, *Darwini*, *B. Fortuni*, and *B. nepalensis* have stood well, though the plants are rather small; the two new varieties of Tree Box, brought from China, by

Mr. Fortune, seem quite as hardy as the other sorts; *Cerasus illicifolia* is considerably hurt in the open border, but a plant on an east wall is not. *Ceanothus papillosus* and *C. dentatus* are slightly damaged in the open ground and on a wall, but *C. rigidus* is not the least injured; this seems the best of the three. All the species and varieties of *Arbutus* have suffered slightly, except *A. tomentosa*; it seems quite hardy, and highly deserving of more extensive cultivation. All the species of *Escallonia* are killed in the tops, both on the borders and walls; and the new *E. macrantha* does not seem any hardier than the older sorts; *Fabiana imbricata* is fresh in the open ground, and beginning to show flowers; *Garrya elliptica* and *G. macrophylla* are not injured this year, though last year they were both injured by less cold, but it was in April. *Fagus betuloides* and *F. Cunninghamii* are both very fresh and green on a south wall; the beautiful *Hedera Rœgnieriana* is also quite green. *Quercus glabra*, *Q. glaberima*, *Q. annulata*, *Q. virens*, are all killed; but the new *Q. agrifolia* is healthy and fresh, so is *Q. Mirbelii*, which promises to be a fine sub-evergreen tree; and *Q. Mexicana* is fresh on an east wall. *Eleagnus reflexa*, on a west wall, also looks fresh, and promises to be quite hardy. Considering the intensity of the frost, and the dry bright sunshine which accompanied it during many days, the injury done to plants, though considerable, is not great; a much less extent of frost in the end of April or the beginning of May, will do far more damage, as the plants have begun to grow, and the young shoots are succulent.—(*Gard. Jour.*)

CEDRUS DEODARA AS A TIMBER TREE.—It appears that we are to have a new timber tree, and a new nurse for our timber trees. We learn from several articles which have recently appeared in the columns of a contemporary, that doubts are entertained by some botanists whether the deodar is anything more than a mere variety of the cedar of Lebanon. These doubts, however, are not participated in by the editor. At any rate, he considers that if the deodar and the cedar are only varieties of the same species, there is sufficient distinctness between them for their timber to be of very different qualities. This is an important economical question, if the deodar is to be naturalized in England; and it seems that a ton weight of the seed has been placed by the East India Company at the disposal of the government, and that it has been distributed among four eminent nurserymen, who are to raise it, in order to its being planted out in the royal forests. Great advantages are anticipated from this tree as a nurse, instead of the Scotch pine and the larch. Against the former it is justly alleged that its foliage is so dense as to intercept the light and air from the deciduous trees planted in company with it. The benefits of shelter from gales of wind, which it confers during one stage of their growth, are thus neutralized by its obstructing proper ventilation at another. Its poles, moreover, are of little value. The poles of the larch, on the contrary, are very saleable; while its pyramidal form and light foliage do not interfere with the free circulation of air; but then these very circumstances incapacitate it, in a great measure, from affording that degree of shelter which is sought to be attained by the system of nurse-planting. Its liability to the rot, which has made its

appearance of late in this once favorite exotic timber tree, neutralizes the advantages arising from the marketability of its poles. The deodar, on the contrary, is extolled as combining the rapid growth and graceful form of the larch with the evergreen habit of the Scotch pine. It is therefore hoped that it will furnish our planters with an excellent nurse for their oaks, while a host of Indian travellers are cited to prove the excellence of its timber.

We confess to having great doubts, founded on extensive observation, respecting the policy of mixing any of the conifers with the oak as nurses, where the production of large timber is the object in view, whatever advantages may be derived from the nursing system, when rapid growth and pictorial effect are to be produced in ornamental planting.

We believe that the British oak has not degenerated since the time when it sprang up spontaneously in our forests, unprotected except by the holly in its earlier stages, and in more advanced growth by deciduous trees like itself. In those parts of the New Forest which are of natural growth, the beech is the constant companion of the finest oaks. The same association has been noticed by Shelley, in the "Forest of Windsor":

"The oak,
Extending its immense and knotty arms,
Embraces the light beech."

The beech affords shelter enough, and not too much. It springs up like a weed; and all that is required is that it should be watched, lest from its more rapid growth it should overpower the oak.

One reason of the difficulty now experienced in raising oak in situations where we have evidence in our bogs of the former existence of the finest timber, arises from the smallness of the scale on which plantations are made. In the modern plantations of the New Forest, as well as in those natural masses of wood that have grown up spontaneously, the cutting effects of the blast do not extend more than a few yards from the outskirts. The larch likewise has been raised in far more elevated and exposed situations, on the mountains of Blair Athol, simply by planting in large masses. These, then, appear to be the secrets of successful planting—to plant in large masses, to plant thickly, and to thin in good time, thinning moderately and regularly. If conifers are to be planted to break the force of prevailing winds, it is better that they should form separate belts than that they should be intermixed with the oaks.

The question whether the oak should be transplanted or raised from the acorn where it is to grow, depends very much on the purposes for which it is raised. In the early stages of growth, perhaps transplanted oaks may do the best, and may yield as good small timber as the untransplanted saplings, and much trouble and disappointment may be avoided in the outset arising from the ravages of rooks and various kinds of vermin. But the superiority of an old "rook-planted" oak is well known to the woodmen; and if naval timber is worth growing, it is surely worth a little extra trouble and expense in its infancy.

We do not enter on the questions whether it is better, in the present

state of this country, that we should raise the timber for our navy or import it—whether a sufficient supply can or cannot be obtained without keeping up public forests for the purpose—and whether, if our timber is to be of home growth, we can depend on obtaining a sufficiency from private estates. What is certain is, that the royal forests have for a long time contributed very little timber to our dockyards, and that the growth of oak for sale has been a very unprofitable speculation in the hands of the government. We doubt whether the growth of the deodar will be found more remunerative, under the same management; at all events, it is desirable that it should not be introduced extensively into our forests merely on the evidence of travellers as to the quality of the timber. Why not bring a few loads of it to England for trial? The experiment of bringing timber from Cashmere may be costly, but it might save money eventually. It would be far more expensive to plant a large quantity of these trees, and to find, after the lapse of a hundred or hundred and fifty years, that we had made a mistake. Great expectations were formed at one time as to the value of larch for ship-building. Where are they now? The oak and the beech, however, still stand their ground in our forests.—(*Gard. Jour.*)

CULTIVATION OF ACHIMENES.—These very pretty blooming plants are, no doubt, grown by most of your readers who are in possession of a greenhouse and frame. To such persons, the following remarks on the cultivation of the *Achimenes* will, I think, be found useful.

Soil.—They thrive best when grown in the following compost:—one-half of good turfy peat, broken in lumps, and the other half to consist of equal parts of turfy loam, leaf mould, and well-rotted cow-dung, to which add a small quantity of sand and broken bits of charcoal; the whole to be well mixed together.

In potting (if pots are used,) let them be well drained, and over the broken pot let there be upon it the roughest part of the soil, and fill up with the finer.

In growing for extra specimens, pans should be used, being a foot or more across; and as the roots do not strike deep into the soil, the pans need only be six inches deep. Grown thus in a mass, a profusion of bloom is produced, which produces a fine appearance.

Previous to the tubers pushing, they should be carefully turned out of the pots or pans they were grown in last year, and be placed in small pans in some fine mould, but *slightly* covered, and having them put into a hotbed frame to start their growth, where the temperature is from 65 to 75 degrees. Let them be kept tolerably moist, and when shoots have pushed, they may be removed from the hotbed, and placed in their flowering pots or pans. In doing this, the tubers must be placed at equal distances over the surface of the pot or pan; for the pan I have described, ten or twelve tubers are required. After potting, those that have the convenience of a stove, or close warm pot frame, should place the pans in it, and keep them near to the glass. When they have grown to about five inches high, the top should be pinched off; this will cause them to break laterals freely, and the plants will become handsome and dwarf. Some varieties that are strong growers

will require stopping twice. As they break out strong, they should be sticked out and tied regularly all round the pan; and when in flower, a fine effect will be the result. When in bloom, they like a *shady* part of the house; in fact, they prefer, through the summer, a partially-shaded house. As they advance in growth, let them occupy a pleasant place in the greenhouse, admit air on fine days, and in the heat of summer give a little at nights. I should have mentioned, that in potting them, let the tubers be placed about one inch below the surface, and let them be watered with a fine-rose pot, to settle the soil around them. When they have done flowering, they should be placed in some convenient corner of the house or shed, in the same pans or pots they have bloomed in; but do not expose them to a temperature under 40 degrees, or the tubers will be injured. Do not turn the tubers out of the pans or pots after blooming, as they sometimes rot; but in spring, when wanted, turn them out and pot them, as before described. The time for potting in spring may be various, as successions may be kept up; for instance, one batch may be started at the middle of February, another batch the middle of March; and to those who have a stove, the middle of April may be used for a late batch. For late breaking, the *Achimenes pedunculata Hillii* should be used, as it is best adapted for late flowering. Few other remarks are necessary, as the above embraces the treatment required the season round; and if it be duly attended to, the blooming season will amply compensate for the trouble—I should have said pleasure—there has been taken with them.

I now give the names of a few good varieties, to help those that have not got a collection, to make one, if they wish to grow these beautiful flowers:—*Amana*, *Bauernania Hirsuta*, *Bodmerii*, *Bockmanii Hirsuta Coerulea*, *Corymbosa*, *Coccinea Grandiflora*, *Fimbriata* or *Gloxiniiflora*, *Jaureguina*, *Hillii longiflora Alba*, *Jayii*, *Margaritæ*, *Pida*, *Floribunda elegans*, *Tugwelliana*, *Venusta*, *Longiflora major*, *Multiflora*, *Purpurea magnifica*.

It sometimes occurs that the plants are affected by mildew; a little sulphur vivum dusted over and under the leaves will soon destroy it. If attacked by red spider, place the plants in a small frame, and fumigate carefully with sulphur; after which, give them a good syringing at the under side of the leaves.—(*Floricultural Cabinet*.)

CULTURE OF THE CINERARIA.—This genus may now be classed amongst the “showy early flowering” plants which this country possesses, and, with judicious management, may be had in bloom nearly *all the year*, by repotting at different seasons. From January to the end of June is the proper time to have them in the highest perfection, and when highly cultivated during these months they are very beautiful, and the admiration of all who are lovers of flowers and fond of seeing a perfect mass of bloom, almost in numberless colors, when grown from seeds. These plants, by some, have been discarded through being so very much subject to the *Aphis* (green fly); this, to a certain extent, can be greatly prevented by keeping the plants in a vigorous state of growth, and by removing all dead leaves, which I find to be the case when a dense foliage is produced. At no time allow the plants to suffer from want of water, as they are very gross feeders of

this element, particularly so when they are fairly established in their flowering pots. Treated as above described, I have observed that the green fly seldom makes its appearance. A slight fumigation, at times, is quite indispensable, as a preventive is better than a safe cure. During April and the following months, as the flowers begin to fade, the tops must be cut close off and set out of doors, when all danger of frost is over. In this state they must remain until a fresh growth is produced, at which time they must be divided and re-potted into sixty-sized pots, using leaf-mould, loam, and sand; then being placed in a cool frame, shaded from the sun, for about two weeks; after which they are again set out of doors in a shady situation, and re-potted into larger sized pots when rooted sufficiently. I believe a greater "mass of bloom" may be obtained when the plants are grown in thirty-two's, than in pots of a larger size; but where "large specimens" are the object in view, twenty-four's and sixteen's must be used; in these sizes they make enormous plants. The following compost I generally use, which I find the plants to grow in very luxuriantly. Two parts loam, one leaf mould, and one part "two years old cow-dung, with about one-fourth silver sand," placing in the bottom of the pot, *above the drainage*, clay and burnt earth, to act as absorbents. Water regularly with that mixed at the rate of one gallon liquid to sixteen gallons of water, the effect will be surprising. A collection of these charming blooming plants merits a place in every greenhouse, pit-frame, or sitting-room window, being beautiful as well as fragrant.—(*Floricultural Cabinet*.)

GARDEN LABELS.—Experiments are the stepping-stones to progress, and progress is the pioneer of discovery. I hit upon a plan lately for labelling my border-flowers, which seems likely to prove a good one. The label is of wood, but instead of being *written* upon, a number only is used, and this number is *burnt into the wood*. The following simple plan effects the object:—Get two flat pieces of iron, one of them half an inch, and the other three-quarters of an inch wide; let both be about seven inches long, an eighth of an inch thick, and tapered to points at one end; leave the narrow piece of iron flat, but curve the broad end of the other into the form of a C; insert the pointed ends of each into a cork, to serve for handles; and with these tools, which a blacksmith will make for twopence, you may mark any number of labels you please, using, however, *letters* instead of *ciphers*—thus, 90 would be XC. It is a nice amusement of a winter's evening to sit by the fireside, with a table before you covered with labels, and by means of these Irons (I use two,) inserted in the fire, stamp the labels, one after the other, as the irons become hot. Practice makes perfect, and a few trials will insure accuracy and despatch. The advantages of the plan are simplicity, cheapness, and durability, besides which you have the operation in your own hands, and can mark any odd label, or number of labels, as you want them. A lady, who is one of my family, says that the plan is a capital one; the truth is, that she excels me in marking the labels, both in speed and execution.—(*Cottage Gardener*.)

WINTER BLOOMING PLANTS.—The following are fine ornaments for a greenhouse, conservatory, or sitting-room during winter:

The *Chinese Primula*, as a small winter flowering plant, has no equal. On account of its compactness and beauty, as well as the length of time it lasts in bloom, it is well worth attention and space; it flowers best when most wanted, i. e., between the months of November and May; it is, however, seldom grown well; the seed, generally speaking, is not sown early enough. To have it very fine, sending up dense bunches of flowers, larger collectively than a man's hat, the seed should be sown some time between August and February. When very large bunches are wanted, three plants should be grown together in a pot; they thrive well in leaf and peat, mixed with sand. The old plants are eligible for autumn flowering or the borders.

The *Ageratum*, as an autumn and winter flowering plant, is grown here in great abundance. We take fifty plants of *Ageratum* from the "bedding stuff," and plant them three feet apart in a convenient place in the kitchen-garden. The shoots are topped and thinned all the summer, the last topping being about the end of August. They are lifted as late as possible to escape frost, with large balls, and potted. When a plant thus treated is in full flower, it presents to the eye a sheet of blue or lavender blossom, two feet across. It is pretty in nosegays.

The *Cineraria* is beautiful at all seasons, but it is most needed in autumn and winter. It is propagated by seed, and dividing the roots. For spring flowering, dividing the roots in autumn answers very well; but for autumn and winter decoration, seed is necessary. We have to sow it in the month of February at Manchester, about London the month of April is soon enough. The *Cineraria* does not thrive when exposed to the *direct rays* of the sun; it is therefore necessary to grow it in *summer* on the north side of a wall or hedge."—(*Gardener's Chronicle*.)

Cuphea Platycentra is another charming bloomer. Sow seed in June, pot off singly as soon as fit, place them in an open frame, stop the buds when six to nine inches high; they will push numerous side shoots, and form bushy plants, which will bloom from October throughout winter, and then be fine for planting in the open beds in May. Their pretty tube-shaped flowers of scarlet, black, and white top, borne in profusion, have a very cheerful appearance.—(*Flor. Cab.*)

CULTURE OF HEATHS.—What was said a short time since, in introducing the subject of Heath culture, may be appropriately followed up by some observations on soil, and other matters relating thereto, as drainage, potting, &c. In selecting heath soil, amateurs, and even young professionals, are apt to make mistakes, which in many cases act as great impediments to success. If the soil selected for heath culture is found to contain any trace of oxide of iron, it must be rejected *in toto*. When in contact with that substance, the roots of heaths invariably perish. If, for the sake of experiment, you place, at the time of potting, an iron nail in the soil used, and supposing it to contain naturally no trace of oxide, you may, on examining the soil after a few months, see ample evidence of the truth of what we have asserted. A portion of the oxygen of the water conveyed to the plant, will have formed with the iron an oxide, and this will have been absorbed by the

surrounding soil to some distance, killing every rootlet coming within the range of its influence. Some reader may possibly ask—"How am I to select soil in which I may be confident no oxide is present?" We reply—By choosing such as is formed entirely by the accumulated decay of our native heaths and their associated vegetation. If you examine the situations where such is to be procured, you will find it exists as a layer, varying in thickness, upon decomposing sand-rock, or probably a mass of pure sand. In either case, when carting away the soil, be careful that none of those substances accompany it. When the sods are dug up, any that may have been cut too deep, can be easily pared away till nothing but pure decaying vegetable matter remains. You have then a prime soil, to which sand may be added as required. Such a rich kind of soil cannot always be procured, and the poor surface of the ordinary heath common has to be substituted for it. In that case, as inorganic matters preponderate to a large extent, sand being in the ascendant, it is a good practice to mix with it a large portion of decaying leaves. We do not mean to mix it with the common heap, but with the portion in immediate use, and thus: If large plants are being repotted, the soil will have been chopped up, and a large portion of the fine particles disengaged during the operation discarded; then take the rotten leaves, which previously have been well broken up by being forced through a fine sieve, and well mix with the soil on the potting bench. If necessary, a little silver sand can be mingled at the same time. For small seedlings, for cuttings when first potted off, or for young plants generally, a greater portion of sand than what is used for the adult plants may be employed. For the two former, it is preferable to place three or four around a pot suitable in size to contain the number, rather than to appropriate a small pot to each by placing it in the centre. In the former case they root sooner and stronger, and when it is necessary to remove them they can readily be divided without damage. The idea that heaths will flourish in a poor soil, because it happens to be what is known as "peat soil," is erroneous, as all clever heath growers know well enough. They enjoy decaying vegetable matter equally with most other plants; but, from their peculiar nature, and the extreme delicacy of their roots, its quality and mode of administration are subjects which require nice discrimination.—(*Gardeners' and Farmers' Journal*.)

ART. II. Societies.

WORCESTER COUNTY HORTICULTURAL.

The annual exhibition of the Society will be held at Horticultural Hall, Worcester, on the 21st, 22d, and 23d of September next.

Liberal premiums are offered for apples, peaches, and other fruits; also, for flowers, plants, and vegetables.

The Committee of Arrangements are—D. W. Lincoln, Wm. M. Beckford, Geo. W. Richardson, S. H. Colton, D. S. Messinger, C. Paine, Samuel Flagg, S. P. Richardson, and Jer. Lovell, Jr.

ALBANY AND RENSSALAER HORTICULTURAL.

The schedule for premiums for 1853, has been published, and the exhibitions will be held in Albany, as follows:—First exhibition, Wednesday, June 22d; second, Wednesday, July 6th; third, the annual show, Wednesday and Thursday, 7th and 8th of September; fourth, the 3d Wednesday of February, 1854.

CAYUGA COUNTY HORTICULTURAL.

This is a new Society, organized in the flourishing county of Cayuga, N. Y. The first meeting was held in February, when the following gentlemen were elected officers for the ensuing year:—

President.—Harrison T. Dickinson, Auburn.

Vice Presidents.—P. R. Freeoff, Auburn; Geo. E. Barber, Auburn; John Morse, Aurelius; O. W. Wheeler, Auburn.

Corresponding Secretary.—Horace T. Cook, Auburn.

Recording Secretary.—S. Seabury Graves, Auburn.

Treasurer.—J. S. Clary, Auburn.

Managers.—Wm. Osborn, S. H. Highey, L. Q. Sherwood, J. R. Page, H. H. Bostwick, W. D. Osborn, A. V. Pulsifer, Solomon Giles, Wm. Cutting.

Already quite a large list of members has been secured, and the Society promises to be an energetic auxiliary in the spread of Horticultural taste. A list of premiums to be awarded at the first meeting in June (about the 20th,) has been published. It will be held in Auburn.

We must not omit to tender our thanks for the honor conferred in making us a member, and we shall order the 19th volume of our Magazine to be forwarded to the Society, as a slight acknowledgment of the compliment.

PENNSYLVANIA HORTICULTURAL.

The stated monthly meeting of this Association occurred on Tuesday evening, May 17th, in the Chinese Saloon,—Dr. W. D. Brincklé, Vice President, in the chair.

The display on the occasion was one of interest, consisting of many fine specimens of greenhouse plants and esculents, betokening much skill in cultivation. Of the former, a few of the choicest might be noticed. In Mr. Buist's collection, were remarkably well grown specimens of *Azalea Maitlandii*, *A. variegata*, *Ixora coccinea*, *Alstrœmeria bicolor*, *Calceolaria*, *Blêtia hyacinthoides*, &c., and a dozen pots of indigenous plants. J. F. Knorr's gardener presented a collection, *not in competition*—a beautiful plant of *Deutzia gracilis*, for the first time shown; *Nierembergia gracilis*, very pretty; *Scutellaria Ventenati*, fragrant *Céstrum aurantiacum*, *Jasminum gracile*, a dozen geraniums, as many cinerarias, and a number of calceolarias, of much beauty. T. Meehan, gardener to Caleb Cope, brought *Physurus argenteus*, *Chysis bractescens*, both new, and shown for

the first time; *Statice Dicksonia*, rare; *Allamanda neriifolia*, good specimen; *Fabiana imbricata*, and *Fuchsia Diadem*; also, a design and baskets of cut flowers—in the latter was the 105th flower of *Victoria Regia*, from the original plant, and a basket of wild flowers. Isaac Collins, gardener to the president, had a large and fine plant of *Euphorbia splendens*.

Wm. Grassie, gardener to W. W. Keen, West Philadelphia, exhibited a specimen of *Hoya imperialis*, new, and for the first time seen, a magnificent plant; a new pelargonium, called *Madame Rosaltii*, of peculiar markings; a fine specimen of *Calceolaria magna lutea*, and many other choice species. James Bisset, gardener to Mr. Dundas, exhibited a fine specimen of *Azalea variegata*, *Gloxinia*, and other select plants. Adam Uber brought a large collection of pelargoniums, in the finest state of cultivation. A. Parker had a table of native plants. T. Meghran, gardener to R. Cornelius, exhibited a handsome design and a basket of choice flowers.

On the fruit table were several dishes of grapes. From Mr. Cope's houses, were the White Frontignac and Black Hamburg. From J. Fisk Allen, Salem, Mass., a bunch of his Seedling Black Hamburg and Seedling Musque verdel; also the Grizzly Frontignan and Verdelho, parents of the seedling.

Reports of the committees for awarding premiums on plants and flowers:—Pelargoniums, for the best six, and for the second best, to Adam Uber; for the best specimen, to T. Meehan, gardener to C. Cope. Tulips, for the best twelve, to T. Fairley; for the second best, to T. Meehan. Plants in pots, for the best collection, to Thos. Fairley; for the second best, to Thos. Meehan. Plant in a pot, for the best, to Isaac Collins, gardener to Gen. Patterson, for *Euphorbia splendens*. Indigenous plants, for the best display, to Thos. Fairley. Plants shown for the first time, to Wm. Grassie, gardener to W. W. Keen, a premium of five dollars for *Hoya imperialis*, in bloom for the first time in this country, it is believed; and to Thos. Fairley, a premium of three dollars, for a fine collection of geraniums, exhibited for the first time. Bouquet designs, for the best, to T. Meghran; for the second best, to T. Meehan; for the best hand bouquet, to R. Kilington. Basket of cut flowers, for the best, to T. Meehan; for the second best, to T. Meghran; for the best, of indigenous flowers, to the same: and special premiums for a fine collection of plants, to J. Bisset, gardener to James Dundas; and for a basket of indigenous flowers, to T. Meehan.

On fruits—grapes, for the best three bunches, the White Frontignac, to T. Meehan. The committee noticed specimens of two fine seedling grapes, from J. F. Allen, of Salem, Mass., which they think worthy of a more detailed notice in their next ad interim report.

On vegetables—cucumbers, for the best brace, to T. Meghran. Rhubarb, for the best 12 stalks, and for the second best, to W. Hobson. Asparagus, for the best 24 stalks, to James M. Tage; for the second best, to T. Meehan. Peas, for the best half peck, to T. Meghran. Potatoes, for the best half peck, to the same. For the best display of vegetables, by an amateur, to T. Meghran; for the second best, to T. Meehan; and a special premium to Samuel Cooper, for a fine display of rhubarb, brought in too

late for competition. The committee called the attention of the society to a dish of French beans, plum tomatoes, and beets, shown by Wm. Johns.

ART. III. *Massachusetts Horticultural Society.*

Saturday, April 2.—The stated quarterly meeting of the Society was held to-day,—the President in the chair.

[The proceedings of the meetings will be given in our next.]

Exhibited. FRUIT: From William Breed, Easter Beurré pears. From A. W. Stetson, Baldwin apples. From J. F. Allen, grapes, in variety; figs.

April 9.—*Exhibited.* FRUIT: From J. S. Amory, Easter Beurré pears, preserved after the plan of D. T. Curtis. From T. Bigelow, by Thos. Needham, strawberries. From A. W. Stetson, Baldwin apples. From Jona. French, by W. F. Walch, strawberries.

April 23.—*Exhibited.* FRUIT: From S. Downer, Jr., pears—Easter Beurré, Catillac, Jaminette, &c.

May 14.—*OPENING OF THE HALL.* The first exhibition of the season, in the Society's Hall, took place to-day. The weather was fine, and the season sufficiently forward to ensure a very good display at such an early period of the month. The show of plants in pots was unusually rich, varied, beautiful,—finer than any ever seen at the May exhibition. Messrs. Wilder and Hovey displayed a large number of plants, and among them several new and choice things. We copy the chairman's report:—

Among the most conspicuous plants shown, were the *Azæla decora*, A. variegata, *Gardénia Fortunii*, and *Torenia asiatica*, from M. P. Wilder. Superb pelargoniums, *Erica Cavendishii*, and other finely grown and rare plants, from Messrs. Hovey. *Justicia carnea*, and *Manettia bicolor*, from T. Page. Splendid cinerarias, calceolarias, &c., from A. Bowditch. Cut flowers, from Winships, P. Barnes, E. M. Richards, T. Page, and others.

From M. P. Wilder, fifty-three plants, among them *Gardénia Fortunii*, *Tetrathèca verticillata*, *Rynchospermum jasminoides*, *Livingstonia chinensis*, *Oldenlandia Déppetii*, *Balsamia latifolia alba*, *Puya Alstensteini*, &c.; also, geraniums, Flower of the Day, *Statinska*, and *Jenny Lind*; *azælas indica variegata*, *decora*, *Gledstanessii*, *Coronata*, *spectabilis*, and seedlings; fuchsias—*Duc de Bordeaux*, *Exoniensis*, *Gen. Changarnier*, &c., &c.; *Begonia coccinea*, *Æschynanthus Horsfieldii*.

From Messrs. Hovey, 6 fancy pelargoniums, viz.,—*Annaïs*, *Jenny Lind*, *Hero of Surrey*, *Pilot*, *Perfection*, and *Maid of Anjou*; fuchsias—*Pearl of England*, *Roi des Fuchsias*, *Psyche*, *President Porcher*, *Gem of the West*, and *Nonpareil*; *Erica ventricosa breviflora*, b. *superba* and b. *hirsuta*, *Cavendishii*, *intermedia* and *Vestita rosea*; six cactuses, six calceolarias, and the following plants—*Tetrathèca verticillata*, *Pimelæa decussata*, Double white Chinese Primrose, *Gladiolus Lord John Russell*, *Æschynanthus Horsfieldii*, *Azæla Gledstanessii*, and *Danielsiana*, *Erica ventricosa hirsuta*, &c.

From T. Page, plants—*Justicia carnea nova*, *Cùphea platycentra*, *Tetrathèca verticillata*, *Calceolaria*, *Clématis Sieboldii*, 2 *Fuchsia*, *Dr. Tyson*;

1 do. Newberry, delicate ; 1 do. exquisita ; geraniums—Anais, Blanche, Lucea rosea, Collins superb, Forget-me-not, Sydonia, Cerise unique, Mus-tee, King John, Cassandra, Vinca rosea, Bouvardia flava ; also, cut flowers and bouquets. From A. Bowditch, seven fuchsias—globosa grandiflora alba, Sir John Falstaff, Fair Rosamond, Hebe, serratifolia, Cleopatra, Gay Lad ; cinerarias—Beauty of Newington, Cadnessii, and five seedlings ; Tropaeolum tricolorum ; geraniums ; eight varieties of calceolarias ; also, cut flowers and bouquets. From J. Nugent, cut flowers, pansies, bouquets, and a fine plant of Erica ventricosa surperba. From A Kenrick, Miss Russell, E. M. Richards, P. Barnes, M. Winship, a variety of cut flowers, bouquets, and flowering shrubs.

PREMIUMS AND GRATUITIES AWARDED.

PELARGONIUMS.—For the best six, to Messrs. Hovey, \$6.

For the second best, to T. Page, \$6.

HEATHS.—For the best six, to Hovey & Co., \$3.

CINERARIAS.—For the best, to A. Bowditch, \$3.

FUCHSIAS.—For the best, to A. Bowditch, \$6.

For the second best, to M. P. Wilder, \$4.

GREENHOUSE PLANTS.—For the best ten specimens, to M. P. Wilder, \$15.

For the second best, to Messrs. Hovey, \$12.

For the third best, to T. Page, \$10.

For the fourth best, to A. Bowditch, \$8.

CUT FLOWERS.—For the best, to A. Bowditch, \$3.

For the second best, to P. Barnes, \$2.

GRATUITIES.—To Messrs. Hovey, for calceolarias, \$2.

To A. Bowditch, for the same, \$2.

To Messrs. Hovey, for new fuchsias, \$3.

To R. M. Copeland, for hyacinths, \$3.

To M. P. Wilder, for Gardènia Fortunii, \$3.

To M. P. Wilder, for superb azaleas, \$5.

To M. P. Wilder, for Tetratheca verticillata, \$1.

To Hovey & Co., for Erica cavendishii, \$2.

To T. Page, for various plants, \$4.

To T. Page and Messrs. Winship, for cut flowers, each \$2.

To E. M. Richards, for cut flowers, \$1.

To T. Page, J. Nugent, J. A. Kenrick, and Miss Russell, for bouquets, each \$1.

FRUITS: From J. F. Allen, grapes—two Seedlings, Black Hamburg, Tottenham Park, Musque Verdelho ; Black and White figs ; Elton cherries ; Hunt's Early and Tawney nectarines. The Musque Verdelho was fully ripened as early as the 15th March, proving the earliest ripener of any in Mr. A.'s extensive collection. From ———, apples—Late Green Sweet, Danvers Winter Sweet, Baldwin, and Hunt's Russet, very fine. From D. T. Curtis, Easter Beurré and Columbia pears. From W. C. Strong, grapes—Black Hamburg, and Muscat Alexandria ; figs. From M. H. Simpson, grapes—White Frontignan, Black Hamburg, Wilnot's

No. 16, Grizzly Frontignan, &c., in all 8 dishes. From A. Bowditch, strawberries—Salmon Berry and Boston Pine, in pots.

May 21.—Exhibited. FLOWERS: From Hovey & Co., J. Breck & Son, and S. Walker, fine tulips. From Dr. C. F. Chaplin, fine pansies. From J. Nugent, two superb bouquets, and 24 var. of verbenas. Cut flowers were also contributed by Winship & Co., J. A. Kenrick, Miss M. A. Kenrick, A. Bowditch, and others.

This was the day appointed to award premiums on tulips. Only two lots were exhibited, viz.: From Mr. Walker and the Chairman. As the latter person declines receiving any premiums through the season for flowers, in consequence of the position he occupies, there was no competitor. Each lot of flowers were of the choicest varieties.

AWARD OF PREMIUM FOR TULIPS.

For the best thirty flowers, to S. Walker, \$3.

FRUIT: From M. H. Simpson, grapes—Black Hamburg, Chasselas Musque, Rose Chasselas, Cannon Hall, Grizzly Frontignan, Black Frontignan, and Chasselas de Fontainbleau; peaches in variety. From N. A. Haven, apples for a name, and Ledge Sweet, (a superior, late-keeping sweet apple.) From J. F. Allen, grapes—White Nice or Xeres, Black Hamburg, and De Candolle; Black and White figs; peaches in variety; nectarines; Elton and May Duke cherries. From W. A. Andrews, (by Hovey & Co.), Dover, N. H., a seedling, called the Sise Apple, a very handsome, late-keeping fruit, above medium size; a high, warm, rich red on a yellow ground; deep red to the sun, and, for its great beauty *alone*, would prove a desirable table fruit.

May 28.—Exhibited. FLOWERS: From M. P. Wilder, 100 blooms of *Pæonia Moutan*, including the following varieties: *Rosea Superba*, *La Soliel*, *Heldii*, *Walnerii*, *Roccoco*, *Charles 5th*, *Papaveraceæ Plena*, *Banksiæ*, *Alba Belgique*, *Monstruosa plena*, and others. From E. Chamberlin, *Pæonia Moutan*, in variety, fine tulips, *Wistaria sinensis*, and other cut flowers. From Winship & Co., a magnificent display of hawthorns, spiræas, azaleas, and other flowering shrubs. From J. Breck & Son, superb tulips. From J. A. Kenrick, hawthorns, azaleas, *Pæony Moutan*, *Laburnum*, *Wistaria*, and other shrubs, (a fine display;) also, a basket of flowers. From Miss Russell, a basket of flowers and two bouquets. From A. Bowditch, seven different varieties of fuchsias in pots, fine specimens, and cut flowers. From P. Barnes, fine pansies. From J. Nugent, fine pansies and four superb bouquets.

From Hovey & Co., superb pansies; a fine display of hardy azaleas, hawthorns and other flowering shrubs. From C. F. Chaplin, a variety of pansies. From E. M. Richards, two bouquets and fine specimen of *Wistaria sinensis*. From Wm. E. Carter, a plant of *Dodecatheon speciosissima*, a beautiful specimen; also a fine specimen of *Pæony Moutan rosea*, *Caprifolium parviflora*, *C. tartaricum*, and other cut flowers.

AWARD OF PREMIUMS.

TREE PEONIES.—For the best 6 var., to M. P. Wilder, \$5.

For the second best, to E. Chamberlin, \$4.

HAWTHORNS.—For the best display, to Winship & Co., \$3.

For the second best, to Hovey & Co., \$2.

AZALEAS.—For the best display, to Hovey & Co., \$5.

For the second best, to J. A. Kenrick, \$4.

For the third best, to Winship & Co., \$3.

PANSIES.—For the best 12 var., to P. Barnes, \$4.

For the second best, to J. Nugent, \$3.

Messrs. Hovey exhibited extra fine pansies, but as they were not in the stand till past eleven o'clock, no premium was awarded. Another lot was offered for premium, but considered by the judges unworthy.

FRUIT: From M. H. Simpson, five varieties of grapes; also, peaches in variety. From A. W. Stetson, apples in variety. From J. F. Allen, grapes in variety; Elton and May Duke cherries, figs, nectarines, and peaches, in variety; a dozen of the Late Crawford were of large size, and extra fine specimens.

HORTICULTURAL OPERATIONS

FOR JUNE.

FRUIT DEPARTMENT.

We have rarely experienced a more favorable and prolonged spring. The whole of May has been mild and pleasant, with genial showers and timely rains. Vegetation never wore a more healthy aspect. Trees of all kinds were overloaded with flowers, and the prospect for a fine crop of fruit is very promising. Peaches, plums and pears will be, from present appearances, abundant enough.

The principal part of the spring work was accomplished with the close of the planting season. The gardener must now turn his attention to keeping everything in fine order. Though hard labor has ceased, care and attention will yet be requisite to reap an abundant harvest.

GRAPE VINES in the earliest houses will now be ripening off their crop, and will need but little attention beyond keeping off all laterals, and airing the house well to ripen off the wood in good season. Succession houses will now be swelling their fruit rapidly, and will need much attention: thin and shudder the bunches; top all laterals; damp down the walks, morning and evening, and preserve an equal temperature with proper quantities of air. Late houses will just be out of bloom and setting their fruit; keep up a good temperature, and commence damping down the house as soon as all are well set. Water the border with liquid manure if dry weather should set in.

PEACHES in pots may now be removed to the open air, selecting a favor-

able situation not exposed to high winds; water liberally with manure water.

STRAWBERRY beds may have frequent waterings, if large fruit is wanted; cover the beds with clean chopped straw, which answers as a mulching as well as protecting the berries from the dirt.

FRUIT TREES of all kinds will need much attention: thin out the fruit if fine specimens are wanted; fifty good pears are better than one hundred poor ones. Summer prune, the last of the month, and mulch the trees with leaves, manure, seaweed or tan.

FLOWER DEPARTMENT.

The fine weather of May, without frost, has enabled the gardener to have his houses in fine order. Everything should have a gay appearance now. The geraniums, calceolarias, verbenas, &c., should be in full bloom, and all half-hardy kinds should have been removed to the open air, in order to make room for the summer plants. Most of the propagating and repotting being done, there is no excuse for not having everything in the neatest condition.

CAMELLIAS will now be completing their growth, and forming their flower buds for next year. Keep them well syringed every day; water with liquid manure, and as soon as the buds are well swollen, remove them to their summer quarters in the open air, unless it is intended to keep them in the house.

FUCHSIAS will need another shift, if the specimens are required to be large and handsome. Keep them neatly tied up, and nip in the side branches to make stocky specimens.

PELARGONIUMS will now be in full bloom: shade them slightly in the middle of the day, and their beauty will be prolonged to the middle of July. Water occasionally with liquid manure.

CHRYSANTHEMUMS should be topped and repotted.

ACHIMENES, GLOXINIAS, &c., should now have a shift into larger pots.

HEATHS will need care now; repot all that will require it till next winter; keep in a frame for a few days, and then plunge them in tan or coal ashes up to the rim, if the pots are in a sunny, airy place. Do not spoil them by placing them in the shade.

EPACRIS require the same care as heaths; cut in all long, straggling branches.

CALCEOLARIAS for a succession, or seedlings of this spring, should be shifted into larger pots.

GARDENIAS of all kinds may have a shift now into larger pots.

EUPHORBIAS, for winter flowering, should now be shifted and grown vigorously to get strong wood.

AZALEAS will now be making their growth; keep them in the warmest part of the house; syringe freely and let them have a sufficiency of water.

CLIMBING PLANTS of all sorts, for summer blooming, such as *Stephanotus*, *Allamanda*, *Sollya*, *Hibbertia*, &c., should be shifted into larger pots, and trained neatly to a good trellis.

VERONICAS, for fall blooming, should have a shift, and the tops nipped off to make bushy plants.

ACACIAS, getting too tall, should now be repotted and headed in: they bear the knife freely.

BEGONIAS are fine when well grown; shift, if they require it, and grow them in a partially shaded situation.

CACTUSES, now going out of bloom, will need looking over: prune them well in, and repot all that require it. Water liberally to get a good growth.

CHORIZEMIAS, **BORONIAS**, and other New Holland plants, should be repotted and neatly tied out to make fine dwarf, bushy plants.

ALL KINDS of winter blooming plants should now be looked up and put in good growing order.

FLOWER GARDEN AND SHRUBBERY.

Bedding out work will now be the principal occupation for a week or two. If all the plants have been secured or grown, the work can soon be done. Prepare the ground well. Such as are pot-bound must not be put in in such a state: it is ruinous to the plant; but break up the ball and spread out the roots. All annuals not already sown should be delayed no longer; and such kinds as were forwarded in frames should be planted.

Walks will require to be kept in good order; roll, frequently. Grass edgings should be mown every fortnight. Hedges should be clipped, if not yet done. Roses, of the tall growing sorts, should be tied up before they get into bloom.

PANSIES should be frequently watered to have fine blooms; seedlings of this spring should now be put out in beds.

HYACINTHS should be taken up and their places filled with annuals.

CARNATIONS and picotees will need tying up as their flower stems advance: keep the ground stirred and the beds free from weeds.

TUBEROSES and amaryllises may now be planted.

DAHLIAS should be all planted out before the 25th of the month. Make the soil rich.

IPOMEAS, **COBEEAS**, and other running plants, should be trained up to stakes before they become tangled up so as to endanger the breaking of the branches.

ROSES may be budded this month: the Teas and Noisettes will make a fine growth this year.

MULCH all newly planted shrubs which may be likely to suffer should dry weather set in.

VEGETABLE DEPARTMENT.

Everything hardy planted out, there is little to do but keep the garden in the neatest order; but in extensive gardens, or even in smaller ones, many tender things will do better put into the ground now than earlier.

EGG PLANTS, **TOMATOES** and **PEPPERS** should be set out immediately.

RADISHES and **LETTUCES** should be planted for a succession.

CUCUMBERS should be planted for pickles.

CELERY should be planted out.

THE MAGAZINE OF HORTICULTURE.

JULY, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *The Shrubs of America.*

Nothing adds more to the interest of a beautiful garden or pleasure ground than an abundance of fine flowering shrubs. Perennial plants, showy as they are, make no display early or late in the season; annuals, brilliant with their masses of bloom in the summer months, soon lose their beauty in the autumn; and the verbenas, geraniums, and other bedding plants, which contribute so much to the decoration of the grounds, are yet only temporary treasures, which almost disappear with the first frost. From June to September, a good collection of perennials, annuals and bedding plants affords abundance of beauty and blossom. This, however, is but *three* months out of the revolving twelve. It may please the city amateur who goes to Newport or Nahant to loiter away the dog-days, but will never satisfy the genuine country resident, who rarely seeks the city, or, if from business or necessity is compelled to, returns again with the earliest departure of winter. To him the early season of spring and the last days of autumn are the loveliest of the year. The budding and leafing of trees and shrubs in spring, and the changing hues of their foliage in autumn, are a source of pleasure which even the dazzle of summer flowers fails to supply. Even the varied spray of a denuded shrub, in mid-winter, has a charm which by constant notice becomes a thing of real beauty. Indeed, he who owns a garden with-

out a fine collection of flowering shrubs, has experienced but little of the gratification to be derived from its possession.

In a late article on the Forest Trees of America, we gave some statistics relative to the indigenous trees of Great Britain, from which it appeared that the entire number of native shrubs was about one hundred. The number of shrubs was greater than the number of forest trees; yet of handsome flowering ones the former was quite limited. Nothing among them all could begin to compare with the rhododendrons, kalmias, azaleas, andromedas, &c. The arbutus, heath, virburnum and daphne may be considered as among the best of the British indigenous shrubs; yet fine as they are they bear no comparison with our American plants.

It is surprising to see how ignorant our own people are of our native plants. Our collection of native and hybrid rhododendrons has just been in full bloom; and few who saw them could believe that such elegant plants grow in various localities all over New England, often acres in extent. "Are they hardy?" was the repeated inquiry. "Will they stand our winters without the least protection?" Those who have become familiar with the tender varieties, often seen in greenhouse collections, never supposed there were hardy ones of equal beauty; and it was only by repeated assurance that they were as hardy as an oak, and had braved the cold of eight or ten winters, that we could convince them of the truth. It is true, hybridization has greatly enhanced the beauty of the rhododendron and azalea; yet the native *R. maximum* and *catawbiense* are in themselves gems of every shrubbery.

But rhododendrons and azaleas are by no means all that are elegant among our native shrubs. There are dozens of others, which, if not equally showy, are no less interesting and desirable. It is not our object to go into detail in this article, but we enumerate a few which are yet but little known, they are as follows:—

Mahonia aquifolium, *Ceanothus americanus*, *Robinia viscosa*, and *hispida*, *Amorpha fruticosa*, and other species; *Spiræa hypericifolia*, and other species; *Calycanthus floridus*

and lævigatus, *Philadelphus grandiflorus* and inodorus, *Ribes sanguineum*, aureum, and other species; *Symphoria racemosa*, *Diervilla lutea*, *Viburnum lentago*, and several species; *Vaccinium*, many species; *Cléthra alnifolia*, and other species; *Andròmeda*, several species; *Ledums*, several species; *Chionanthus virginica*, *Dirca palustris*, *Eleagnus argentea*, &c. Of rhododendrons, Pursh, in his *Flora*, edition of 1814, enumerates five species and varieties, and of azaleas, sixteen species; but since the multiplication of varieties by seed, these native species and varieties have less value.

It would be interesting to trace the introduction of many of our native trees and shrubs to England. It would scarcely be believed that years ago, in 1806, one single lot of plants was carried home by John Lyon, the catalogue of which, when made out for sale by auction, filled *thirty-four* closely printed pages, and occupied four days in the sale. And in 1812, another lot, nearly as large, was again carried home. The first lot was supposed to be the largest ever brought to England at one time by one individual. At this period, when trees and plants are imported by millions, it scarcely seems possible that our exports were once nearly as great as our imports now. The rage for some particular kinds of trees and shrubs was excessively great. The Marquis of Blandford, afterwards Duke of Marlborough, in 1801, began to make a collection of the choicest trees and shrubs. About that time, American plants, such as magnolias, rhododendrons, azaleas, &c., being rare, bore enormously high prices, and the Duke frequently paid Mr. Lee, of Hammersmith, *twenty to thirty guineas* per plant. The history of the introduction of American plants to Europe would be read with much interest, and we hope to find the opportunity to refer to it hereafter. From the conclusion of the Revolution to 1812 the number of species and quantities of plants sent abroad, chiefly to England and France, was immense. Catesby, John and Wm. Bartram, André Michaux, Fraser, and Lyon, were the principal collectors of the latter part of the eighteenth century; and to their exertions we are indebted for the many species which are now to be obtained at such reasonable prices from foreign cultivators.

We now need such energetic men as the Bartrams and Michauxs to explore California and New Mexico. Many fine additions to our collections will undoubtedly be made from those regions. If what Douglas sent home is any indication of the flora of the Pacific coast, many new and elegant shrubs yet remain to beautify and embellish our collections.

Our object is to interest every planter in our native shrubs, without rejecting any exotic of real merit. We wish to see our native plants find a place in the garden or pleasure ground of all who appreciate variety and beauty.

ART. II. *On the term "Natural," as applied to Improvements in Landscape.* By WILSON FLAGG.

As one of the essential qualities of beauty in landscape, the *naturalness* of its appearance deserves particular attention. One is often questioned respecting the meaning of the word *natural* as applied to rural improvements, and the present essay is an attempt to give a satisfactory answer. Why, of two places, on which equal amounts of labor and art have been bestowed, one should have a natural and the other an artificial look, we cannot always readily explain. If one is stiff and formal, the other easy and graceful, and they differ in no other respects, we should say that it is the formality of the one and the gracefulness of the other that cause the difference in their expression. But there are scenes laid out without any stiffness or formality, which are far from having a natural look, making it manifest that if formality be one of the evidences of art, the opposite of this quality may not always conceal it.

We should say of the gravelled walks of a highly decorated parterre, how great soever the irregularity of their curvilinear directions, that they do not look natural; but we say the contrary of a field-path, that winds around the sides of hills, along the edges of ponds and meres, pursuing an irregular course through the vines and shrubbery of the pastures.

They are both the work of art; but the one exhibits evidences of design, while the other is plainly the chance work of men and animals, who have trodden down the herbage while travelling the most convenient course to a certain point. It might be said that the irregularity, or graceful serpentine course of the field-path, and the geometrical configurations of the gravelled walks in the parterre, cause the difference in their expression. Yet a parterre may be laid out in the most irregular manner, and the field-path may be nearly straight, when passing over a level ground, still the case is not changed. The evidence of some special design would always be apparent in the gravelled walks of the flower garden and absent in the field-path.

A loose stone wall is as strictly an artificial object as a board fence. Nature, in both cases, provided the materials; and if the former has the appearance of being more natural than the latter, the explanation is that the materials of the stone wall are not of an artificial shape, but simply piled up into an artificial collection, while those of the board fence are entirely artificial in their shape. The board fence, therefore, exhibits to the sight more palpable evidences of art and design than the stone wall. Hence the latter, compared with the former, is less calculated to mar the naturalness of the prospect. But if an object exhibit evidences of design, while it harmonizes with the general appearance of nature, it seems more natural than it would if it were wanting in such harmony. A naked board fence would, on this account, seem more natural than one that is painted, especially if the paint be white, or of any glowing color. A coat of white paint carries it one remove further from nature, and presents to the eye an additional palpable evidence of design. On this principle we may account for the greater picturesque effect of rustic fences, or such as are made of the rude materials of the forest, which, though put together with neatness and skill, exhibit no evidence of complicated art or extravagant cost. Such a fence never can be made to harmonize with a costly villa, or with any buildings which are highly finished and ostentatious in their external appearance. As

well might one of our fashionable ladies hope to pass for a shepherdess, by taking a crook in her hands and adding to her costly gear a few green oak leaves.

As the evidences of art and design are calculated to injure the natural appearance of a landscape, the same effects are produced by the evidences of cost. A landscape beautifully decorated, in harmony with the general aspect of nature, may have been laid out at a very great expense, yet if the taste and ingenuity of the artist have concealed the palpable evidences of cost, the whole scene appears to the beholder to be one of those lovely places on which nature has lavished an extraordinary portion of her favors. This art I conceive to be the true secret of successful landscape gardening,—as the perfection of eloquence consists in the attainment of the highest graces of composition, combined with a charming simplicity, that makes the whole seem to be the extemporaneous outpouring of the mind. The designer of landscapes has attained the perfection of his science in proportion as he has learned to conceal the marks of cost and design, while adding to them all those charms which affect the visitor with the highest emotions of pleasure.

Hence it happens that landscape gardens so often fail in producing that agreeable effect on the mind of the beholder, which he derives from the sight of another similar place, covered with a spontaneous growth of trees and shrubbery. The proofs of the lavishment of a great deal of money, in spite of the absence of straight lines and formal arrangements, are too apparent in the clean gravelled walks, in the clearance of wild shrubbery under the trees, and in the general symptoms of expensive labor, exhibited in a thousand different ways. One might say that everything about it is perfectly natural, because the trees and other vegetation are the indigenous growth of the place, and in the very spot where nature herself had planted them. I admit that everything seen there is natural; but the absence of other things which have been cleared away, for the sake of elegance, destroys this desirable effect. The very efforts which have been made to give it a natural expression, if misdirected, may produce the

opposite. A wealthy man cannot tolerate the growth of anything in his grounds that would seem to convey the impression of a want of neatness. Actuated by this spirit, he roots up thousands of native vines and shrubs, which, in their tangled confusion, are so pleasing to the sight about a rustic farmyard. By so doing, he exhibits in the aspect of his grounds the evidence of much expensive labor. The very neatness of their appearance mars their picturesque effects. No man who visits his place can fail to observe what is often termed an aristocratic expression, or the evidence, in one way or another, of a great deal of cost.

Let this landscape garden suddenly become the property of a poor farmer, who, with the assistance of his cattle and one hired man, performs all the work of his farm. If there was no geometrical precision in laying out the walks and planting the trees, the place quickly recovers the naturalness of its appearance. The Dutch myrtle and the sweet fern reappear on the sides of the hills, and the rocky places are again overgrown with blackberry vines and the low blueberry. The button-bush springs up in wet places, and the red-winged blackbird builds his nest in the forks of the branches. Along the sides of the fences the viburnums and wild roses are seen again, with an undergrowth of low laurel, and white and purple spiræa; and mixed with the greensward, in their season, you behold a crowd of anemones, cornels, saxifrages and wild geraniums.

The old gravelled walks have almost entirely disappeared, the grass has grown over them, and the ruts of the farmers' cartwheels, and the middle path made by the feet of men and horses, are all that remains of the ancient aristocratic walk. The grandeur of the old park is increased by the more ancient appearance of the trees, and the evidences of former expense and human labor are buried beneath an undergrowth of miscellaneous wild vines and shrubbery. The natural appearance of the grounds is at length fully restored; and their general aspect would, I believe, affect the minds of the majority of spectators more agreeably than when the estate was in the most improved condition, in the hands of its wealthy owner.

It is not my aim to depreciate elegance, neatness or grandeur; neither do I wish to recommend about a gentleman's estate the rusticity of a farm in the woods. A perfect naturalness is not attainable consistently with other indispensable designs. But were the wealthy owner of a place, like the one above described, guided by a desire to preserve in his grounds that simplicity which pervades all the works of nature, he might easily have accomplished his purpose without any sacrifice of neatness or elegance. We should carefully distinguish between the elegant and the finical. But a man of ample wealth often allows his vanity to control his taste. If he resolves to make a landscape garden that shall harmonize with the beauty of nature, his ambition to advertise on the face of it the expense he has lavished upon it spoils the whole effect. If his pecuniary means had been more limited he might have accomplished a better work. In his efforts to avoid the appearance of rusticity he has marred the face of nature, either by decorating her with ornaments that do not belong to her, or by depriving her of some of those natural ringlets which always adorn her face when you see her in company with farmers and rustics.

An appearance of rusticity in any grounds, combined with neatness and beauty, is more pleasing than an equal degree of naturalness combined with the evidence of great cost. In this essay I am not aiming to build up a theory. It is my object, by analyzing the different emotions which are felt on beholding different scenes of combined nature and art, to ascertain their character and origin. If we can tell why men are pleased with one scene and displeased with another, we have, to a certain extent, acquired a knowledge of the principles of taste; and when employed in improving the face of nature, we should not be guilty of those common errors, by which the beauty of a landscape is often destroyed. The exhibition of pride has been fatal, in hundreds of instances, to the picturesque effects of some magnificent grounds. Nothing is more difficult than to lay out a great expense on a tract of land, already moderately wooded, without injuring that beauty which originally belonged to it. There are more

places ruined by expense than by neglect, on account of the scarcity, on the one hand, of that species of judgment which should belong to an improver of grounds, and the liberality of nature, on the other hand, in raising up her bounties wherever she is left to act with perfect freedom.

The rustic, who labors without reference to the beauty of his grounds, whose toil is so valuable to him, for the supply of his daily wants, that he cannot expend any superfluous labor on his estate, is seldom guilty of marring the face of nature by attempts at improvement. The little cart-path, over which he passes with his teams, is not gravelled, nor rolled into a level. Two rows of grass mark the spaces between the wheel-tracks and the middle path made by the horses' feet. This appearance is beautifully associated in our minds with rustic labor. Should the place become the property of a wealthy owner, and these cart-paths be transformed into gravelled walks, unless the whole be managed with great taste and judgment, its picturesque charms will be lost. With the absence of its rusticity, it is apt to lose many of its original charms; and we turn away from it, however beautiful it may be, with nearly the same feelings we should experience on seeing an old familiar grove cut down, and the land divided into house lots to be sold by auction. Next, therefore, to the appearance of naturalness, an air of rusticity is essential to the picturesque beauty of a landscape. The great secret consists in preserving this rusticity without sacrificing neatness and elegance.

A hovel that gives signs of squalid wretchedness, and the proud mansion which, with all its accompaniments, evinces that the owner or occupant would exclude his rustic neighbors from any approach to it, equally offend the sight. The one suggests to the mind a painful idea of the misery of its inmates; the other evinces that so much of the beautiful earth, over which all men would be free to roam, is monopolized and we shut out. These hints will be of no value to the wealthy man of vulgar mind. The gratification of his own vanity is all he studies when engaged in making his improvements. The more the evidence of cost is conspicuous about

his house and lands, the more effectually do they answer his ends. He has no conception of beauty; but he understands the evidences of wealth, and these are all he aims to express in the decoration of his grounds.

The question may be put to us, whether we should condemn all improvements, as they are called, that do not harmonize with our ideas of picturesque expression. An answer either in the affirmative or the negative would require some qualification. Still there can be no doubt that if every owner and every improver was governed by a regard to the *moral* as well as the beautiful effects of certain designs in the decoration of his grounds, and by an endeavor to carry them out in all situations in which they are practicable, the general aspect of the country would in a very few years exhibit beauty combined with a charming simplicity, such as can be seen at present only in a very few places.

Beverly, June 8, 1853.

ART. III. *Remarks on several New Pears.* By BAPTISTE DESPORTES, Angers, France.

WE have received the March number of your excellent journal, and have read with great interest the article describing several new pears, and the perusal of it has suggested to us some reflections, which you will permit us to offer for the study of all who are interested in horticulture. If you find these reflections are worth the trouble, you can give them an insertion in one of your approaching numbers.

The pear which you call the Soldat Labourer is the true one. For a long time in France we have sold this under the name of the Orpheline d'Enghein, or true Beurré d'Arenburg, which we received from Belgium, under the first of these names. We soon recognized the error, and in our *Catalogue* for 1851, we inserted a special note upon this subject, in order to prevent our correspondents from making any mistake, or feeling any concern regarding the classification of this fruit.

Mr. F. L. Olmsted has given a description and engraving of this pear, in the *Horticulturist* for January, 1852. We consider the true Soldat Labourer a pear of great merit, under all reports.

DELICES D'HARDENPONT.—We have really under cultivation in our nursery at Angers, two Delices d'Hardenpont; one, which has the appellation of the Delices d'Hardenpont d'Angers, from the name of this city, where it originated, appears but little known. It is always a fruit of the highest excellence, and remarkably productive. It is very highly esteemed in our country, precisely on account of this fertility. The description which you have given in the report, answers very well for our specimens. It ripens with us in September and October, notwithstanding with you it ripens in November and December.

The variety called Delices d'Hardenpont de Belgique, or Fondante Paraseille, according to the Committee of Horticulture, of Angers, which you have also given a full description of, is undoubtedly identical with ours; but with you it ripens still later; with us it ripens at the commencement of October, and with you in November. I had supposed from the extreme heat of your climate, that fruits matured sooner than with us; it is, without doubt, owing to your springs, which are much more precarious than ours. Annexed we have given the figures of these two pears, taken from our school of fruits. [These drawings are precisely the same as those accompanying the descriptions of these varieties, by M. Desportes, in our volume for 1851, (XVII, p. 545.)]

LOUISE D'ORLEANS.—Before our visit to the United States, in 1849, there did not exist, to our knowledge, in any of the large nurseries of France, a pear under the name of Louise d'Orleans; or, if it existed, it was only in some large collection of names, rather than veritable varieties, and accordingly had escaped our attention. But notwithstanding this, the orders which we received in this country, for the Louise d'Orleans, were for larger or smaller quantities of the trees; we felt, therefore, a great interest for our correspondents, who were looking for the *recherche* varieties. We immediately ordered it of several of our correspondents in Belgium and

England, and received from all of them nothing but the Urbaniste. We at first doubted the correctness of the question, but after two or three years' study, observation and comparison, there does not remain the least doubt. We have accordingly become convinced that this variety never had any existence other than the Urbaniste. We made this remark in our supplementary Catalogue for 1852, where we said we had no doubt upon the subject. This variety is assuredly not new; as it has been described in the *Jardin Fruitier* of M. Louis Noisette, and was rejuvenated more recently under the name of Beurré Picquery, and recommended to all amateurs as being the best of pears. Afterwards it appeared under the name of Louise d'Orleans, accompanied with praises equally great; and, lastly, the same variety has been sold in Belgium, under the name of Beurré Drapiez. We ourselves were among the first to sell it under this name, at \$1 each, before we discovered the error. We seriously regret the mistake, and we are happy to have this occasion to inform all those persons to whom we have sent these trees, that we are always ready to remit their value.

DUCHESS D'ORLEANS.—The same history, and precisely the same circumstances attach to the Duchess of Orleans pear. We have ordered it from all sources, and have always received our Beurré St. Nicolas, originated upon the farm of this name, at Angers, at our own gate, and we might say directly under our eyes; we have also expressed a doubt of the identity of this pear, in the same Catalogue for 1852.

We still perceive a number of errors among the names of pears, but as we are afraid of abusing the patience of your readers, we shall leave the remainder for our new Catalogue, in press at this time, and which will appear in the approaching July. We have, in this Catalogue, given the name and author of each variety, and all their synonymes, in order to escape deception and make known to amateurs all the names under which each variety is sold. We would remark that we consider the Beurré Sterkmann as being the same as the Doyenné Sterkmann.

Angers, France, April, 1853.

ART. IV. *Pomological Gossip.*

THE OHIO SEEDLING STRAWBERRIES.—Ever since the four varieties of strawberries were introduced to cultivation by the recommendation of the Cincinnati Horticultural Society our amateurs have had a great desire to see the fruit. A strawberry to take the *one hundred dollar* prize ought to be a good one, and consequently McAvoy's Superior, raised by Mr. Longworth's gardener, with three others called McAvoy's No. 1, Schneike's Pistillate and Longworth's Prolific, have been an especial object of interest. How well they have fruited with other cultivators we are not aware, but with us they have had good attention and have shown their true merits. To say that they have fulfilled our expectations will not probably be expected; but we readily admit they have, for we never believed they would come up to the standard of cultivators in our vicinity. The truth is, from some reason, our Cincinnati friends do not appear to have a correct standard to judge by; either the eastern varieties do not succeed in the city of Cincinnati, or they have not yet discovered the method of growing them, or else they have not the genuine varieties, free from mixture of sorts; there can be no mistake about this. The following is the report of the Cincinnati Horticultural Society, for 1851:—

“McAvoy's Seedling, No. 1.—Pistillate, large, prolific, bright scarlet; not high flavored but the handsomest dish on exhibition.

Schneike's Pistillate.—Large, medium quality.

Longworth's Prolific.—The largest and most prolific hermaphrodite strawberry known to the committee, and equally prolific with any other variety. The plant is more hardy than Hovey's, and recommended for general cultivation after four years trial.

McAvoy's Superior.—Pistillate, very prolific, large, dark colored, high flavored and luscious—a hardy plant; the specimens exhibited superior to Hovey's Seedling or any other strawberry that came under the examination of the committee, and entitled to the premium of \$100 offered by the society in 1847.”

Hovey's Seedling was announced as the standard of *good* in flavor, by the committee.

We have beds of each set out in the fall of 1851, and now bearing many quarts, and we venture to say as large as any ever seen in Ohio, coming full up to the measurement as acknowledged by Mr. McAvoy himself, viz., *four and a half* inches in circumference.

McAvoy's No. 1.—This variety is pistillate, it does not set freely even with a good staminate variety beside it. It is only a moderate bearer of fair size. The color is too dingy and the watery nature of the fruit renders it almost useless as a market berry ; the flavor is rather insipid.

Schneike's Pistillate.—The committee only recommended this as of medium quality, but it is not even that ; it is one of the sourest strawberries we ever ate, and not only sour but bitter, and disagreeably flavored ; it is of a pale scarlet color, and the berries, even before they are ripe look as if they had been picked and begun to decay. We consider it quite a worthless variety.

Longworth's Prolific.—A very good bearer but only of fair size and medium quality—being rather acid. The color is dull and the general appearance of the berry inferior.

McAvoy's Superior.—Very little different from No. 1. The berry is only of fair size, and of a very dark dingy color like the Hautboy, with yellowish seeds. Flesh thin and watery, and the flavor only of medium quality. It has the same fault of No. 1, does not set and fill up well. The footstalks of the berries are quite long and slender and the whole cluster loose. Though the best flavored of the four it is far inferior to many of the older varieties.

A few days since, the Garden Committee of the Massachusetts Horticultural Society visited several gardens in this vicinity, where these varieties were in fruit, and we understood the chairman to say, that after eating them from the vines and with sugar and cream, they thought them quite indifferent strawberries.

ART. V. *The Cultivation of Begonias.* From the Gardeners' Journal.

Few classes of plants afford more gratification than the Begonias. Blooming at various seasons of the year,—some in spring, some in summer, others in autumn, and still others in winter,—a collection of a few of the best species will display their pretty flowers every day in the year. With a peculiar foliage, which distinguishes the whole tribe, they are yet in many particulars quite dissimilar. All have rather thick, often fleshy leaves; but some are remarkable for the peculiar deep color of their foliage, as in *Begonia sanguinea*; others, like *B. manicata*, for their long, fringed flower stems and foliage; while others have spotted leaves, like *B. argyrostigma*. The flowers are generally displayed in very large spreading panicles, and remain in beauty a long time. Recently many very fine additions have been made to foreign collections, which have greatly enhanced the interest in their cultivation, and probably through the process of hybridization, new and still finer sorts will eventually be produced.

But like many other plants, to show how beautiful they really are, they must be well grown; no tall, lanky, spindling shoots, with here and there a few meagre flowers, will give satisfaction; they should be bushy, compact and handsome, and covered with a profusion of blossoms; by judicious management this may easily be accomplished.

In England, where the comparatively sunless winters and cool summers prevent the cultivation of many plants in the greenhouse, the Begonias are denominated "stove-plants," requiring a situation where they can have a much higher temperature than is given to ordinary collections of plants. But with us a larger part of them, particularly the summer and autumn blooming kinds, flourish to perfection in the greenhouse. The heat of our summers being as great as the average temperature of the "stove," or hothouse. Nothing could be finer than some of the specimens of *parviflora*, *incarnata manicata*, &c., which have been grown with other greenhouse plants.

The annexed article furnishes a large list of sorts worthy of possession. We have never seen more than half of them under cultivation; that number affords a very fine variety, though undoubtedly all are equally desirable, and worthy of cultivation in large collections. Such as we have found the most interesting and suitable for amateurs, are the following:—*nítida*, *lúcida*, *coccínea*, *álbo coccínea*, *parviflòra*, *manicàta fuchsoídes* and *f. álba*, *incarnàta*, *sanguínea*, *cinnabarína*, and *argyrostigma*:—

There are but few gardens, whether public or private, either of amateurs or nurserymen, where the cultivation of plants receives any share of attention, which do not possess some species of the interesting genus *Begonia*, which is one of the most extensive of tropical plants at present cultivated. They are all herbs of a succulent nature, and are very remarkable for the singularity and great uniformity of their leaves, which are one-sided, resembling an ear. Some of them are very pretty, and many of them are exceedingly handsome, both in foliage as well as flower; and when in a good state of cultivation they form a most important feature in hothouse decoration during the latter part of winter, and throughout spring and summer. They are chiefly stove plants of free growth, are very easily propagated and cultivated with facility, in a moderate stove temperature, requiring to be grown in a light compost composed of good peat, leaf-mould, and silver sand, with a little loam, and potsherds broken to about the size of a nut, sufficient to ensure porosity with good drainage, which is indispensable, particularly to this class of plants. Water should be given at all times cautiously at the roots. Never allow them to become at all soddened, or they will soon show symptoms of decay. Syringing overhead should be withheld during autumn and winter, and given only at other times when the leaves can soon become dry again. A few of them succeed well in a greenhouse. When a genus contains a very extensive number of species, similar to that of the *Begonia*, it may reasonably be expected that the greater portion of them are only interesting

as botanical specimens, few of them being in reality useful to amateurs, or worthy of assiduous cultivation, which is in this instance precisely the case. As there is a large number of them which are diffused, to a greater or less extent, throughout gardens—and among them are many well worthy of attention, and would be an acquisition to first rate collections—I have in the subsequent list enumerated all the species that are at present growing at Kew, (with the exception of a few unnamed) and which contains nearly all that are known in cultivation. The remaining ones are but of little importance to amateurs, except *B. prestoniensis*, which is hybrid, and richly deserves a place in every collection where Begonias are cultivated at all. In framing the annexed list, the letter *d* signifies decumbent, indicating that those species have a decumbent creeping stem; consequently they are best suited for cultivating on pans or shallow pots, as they chiefly require surface room. Those marked *e* have erect-growing stems, requiring more or less head room; and those marked *t* are tuberous-rooted, and usually die down annually. The height of the plant is given in feet, and the color of the flower—which is a desideratum to those who cultivate, or wish for a selection only:—

- | | | |
|----------------------------|----------------|-------------------|
| 1. acuminata, . . . | <i>e</i> , 3, | whitish. |
| 2. albo-coccinea, . . . | <i>d</i> , 1, | red and white. |
| 3. argyrostigma, . . . | <i>e</i> , 4½, | white. |
| 4. Barkerii, . . . | <i>d</i> , 1½, | white. |
| 5. biserrata, . . . | <i>t</i> , 2, | — |
| 6. calciphylla, . . . | <i>e</i> , 4, | — |
| 7. carolinifolia; . . . | <i>e</i> , 2, | pink. |
| 8. castanifolia, . . . | <i>e</i> , 3, | white. |
| 9. cinnabarina, . . . | <i>t</i> , 3, | cinnabar colored. |
| 10. coccinea, . . . | <i>e</i> , 2½, | scarlet. |
| 11. crassicaulis, . . . | <i>e</i> , 1½, | whitish. |
| 12. dichotoma, . . . | <i>e</i> , 5, | white. |
| 13. digitata (luxurians) . | <i>e</i> , 4, | whitish. |
| 14. dipetala, . . . | <i>e</i> , 3, | light rose. |
| 15. Diricksiana, . . . | <i>d</i> , 1½, | white. |
| 16. discolor (Evansiana) | <i>t</i> , 1½, | pale rose. |

17. <i>diversifolia</i> , . . .	<i>e</i> , 3,	pink.
18. <i>Dregei</i> (<i>parvifolia</i>) . . .	<i>t</i> , 2,	lightish.
19. <i>erythrophylla</i> , . . .	<i>e</i> , 5,	white.
20. <i>fagifolia</i> , . . .	prostrate,	white.
21. <i>Fischerii</i> , . . .	<i>e</i> , 2,	white.
22. <i>frigida</i> , . . .	<i>e</i> , 1,	light.
23. <i>fuchsoides</i> , . . .	<i>e</i> , 6,	red.
24. <i>geranifolia</i> , . . .	<i>t</i> , $\frac{3}{4}$,	white and red.
25. <i>heracleifolia</i> , . . .	<i>d</i> , $1\frac{1}{2}$,	rosy.
26. <i>hernandifolia</i> , . . .	<i>d</i> , $1\frac{1}{2}$,	white.
27. <i>hirtella</i> , . . .	<i>e</i> , 1,	white.
28. <i>hydrocotylifolia</i> , . . .	<i>d</i> , $\frac{1}{2}$,	rosy pink.
29. <i>incarnata</i> , . . .	<i>e</i> , 3,	pinkish.
30. <i>Ingrami</i> , . . .	<i>e</i> , 2,	rose.
31. <i>lacte virens</i> , . . .	<i>e</i> , 2,	pale rose.
32. <i>lobata</i> , . . .	<i>e</i> , —,	—
33. <i>longipes</i> , . . .	<i>e</i> , 6,	white.
34. <i>macrophylla</i> , . . .	<i>d</i> , 2,	white.
35. <i>manicata</i> , . . .	<i>e</i> , $2\frac{1}{2}$,	light rose.
36. " <i>hydrocotylifolia</i> , <i>d</i> ,	1,	pinkish.
37. <i>Martiana</i> , . . .	<i>t</i> , 2,	rose.
38. <i>Meyerii</i> , . . .	<i>e</i> , 3,	light with pink hairs.
39. <i>muricata</i> , . . .	<i>e</i> , 3,	white.
40. <i>nitida</i> , . . .	<i>e</i> , $4\frac{1}{2}$,	rosy pink.
41. <i>parviflora</i> , (<i>Wallichi</i>),	<i>e</i> , 2,	white.
42. <i>papillosa</i> , . . .	<i>e</i> , 3,	pinkish.
43. <i>peltata</i> , . . .	<i>e</i> , $2\frac{1}{2}$,	light rose.
44. <i>platanifolia</i> , . . .	<i>e</i> , 5,	pinkish.
45. <i>punctata</i> , . . .	<i>e</i> , $\frac{3}{4}$,	pinkish.
46. <i>Putzeysii</i> , . . .	<i>e</i> , 4,	creamy white.
47. <i>ramentacea</i> , . . .	<i>e</i> , 1,	pinkish.
48. <i>reticulata</i> , . . .	<i>e</i> , 4,	—
49. <i>ricinifolia</i> , . . .	<i>d</i> , $1\frac{1}{2}$,	—
50. <i>rubro-venia</i> , . . .	<i>d</i> , $\frac{1}{2}$,	whitish with red veins.
51. <i>rupestris</i> , (<i>lucida</i>) . . .	<i>e</i> , 2,	lightish.
52. <i>rutilans</i> , : . . .	<i>e</i> , 3,	white.
53. <i>sanguinea</i> , . . .	<i>e</i> , $2\frac{1}{2}$,	white.
54. <i>semperflorens</i> , (<i>cucullata</i>) <i>e</i> ,	2,	white.

55. <i>stigmosa</i> ,	.	.	<i>d</i> ,	1,	lightish.
56. <i>Thwaitesii</i>	.	.	<i>d</i> ,	$\frac{1}{2}$,	light with red veins.
57. <i>tomentosa</i> ,	.	.	<i>e</i> ,	3,	white.
58. <i>almifolia</i> ,	.	.	<i>e</i> ,	5,	white.
59. <i>umbilicus</i> , (<i>hernandifolia</i> Hook)	.	.	<i>d</i> ,	$\frac{1}{2}$,	rosy red.
60. <i>undulata</i> ,	.	.	<i>e</i> ,	$4\frac{1}{2}$,	white.
61. <i>velutina</i> ,	.	.	<i>e</i> ,	3,	light.
62. <i>vitifolia</i> ,	.	.	<i>e</i> ,	5,	whitish.
63. <i>Xanthina</i> ,	.	.	<i>d</i> ,	$\frac{3}{4}$,	yellow.
64. <i>Zebina</i>	.	.	<i>e</i> ,	5,	white.

ART. VI. *The Abromia Umbellata.* By the EDITOR.

CALIFORNIA and the Northwest coast have enriched our gardens with more beautiful annuals than almost any other country of equal extent. Through the labors of Douglas, the lamented botanist, a great number of fine plants were sent to England, and from thence to our country. Hartweg afterwards explored Mexico and part of California, and also sent home, among other things, a quantity of fine annuals; among the latter, was the *Abromia umbellata*, which we now have under notice.

This pretty plant (*fig. 22*) he found near Monterey, where it grows upon the seashore, in a sandy soil, whose glittering particles adhered to all its parts, favored by the viscosity with which it is covered. Dr. Lindley describes it as a branching plant, throwing out long velvety shoots, which strike root at the joints; with ovate-obtuse leaves, succulent, fringed with soft hair, and with long petioles. The peduncles are longer than the petioles, supporting erect the compact umbels formed of numerous tubular flowers, violet colored, exhaling an extremely sweet odor towards evening. The limb of each flower is cut into fine segments, and each of these is regularly biparted.

The first aspect of the plant is that of a verbena; it has

the same decumbent habit, and the flower stems stand erect above the foliage. The whole plant has a neat and delicate habit, and when grown in broad shallow pans, with its trailing stems hanging on all sides, or wound round the top and pegged down, has a beautiful appearance, and is well worthy of general cultivation.

Coming as it does from the sandy beach of the seashore, it will require a very light sandy soil, and a dry situation ;



Fig. 22. The Abromia Umbellata.

damp will be the only thing to guard against, as its succulent and glutinous stems and leaves are quickly affected by a wet soil. Bedded out in a suitable place, it must form an exquisite summer blooming plant.

Its propagation is simple ; it may be grown either by seeds or cuttings, precisely the same as the verbena, and, except that it likes a sandy soil, it may have precisely the same attention.

ART. VII. *Floricultural and Botanical Notices of New and Beautiful Plants, figured in Foreign Periodicals; with descriptions of those introduced to, or originated in, American Collections.*

NEW ACHIMENES.—Few plants contribute more to the decoration of the greenhouse all summer than the achimenes. Readily cultivated, and easily increased, they should be abundant in every good collection. The older varieties, *A. picta*, *longiflora*, *grandiflora*, &c. are all beautiful, especially *picta*, but some of the new ones are great improvements upon them, particularly in the habit of the plants. Since the production of seedlings a large number of sorts have been produced, and as they readily seed, are impregnated with facility, and bloom early, the attention of our amateurs should be directed to the growth of new varieties. We have now a number of newly imported sorts, and have been highly gratified in witnessing their flowers. The following are those we have already seen:—

A. Boothii. Habit upright, vigorous, with reddish leaves, and large, dark bluish purple flowers.

A. Boothii violacea. Like *Boothii*, but with deeper colored flowers.

A. Margaretteæ. Snow white; flowers of good size, larger than *longiflora alba*. Habit fine, and foliage light green.

A. Bæckmanii. Somewhat like *Boothii*, but with flowers of a varied shade.

A. Bæckmanii cærulea. Similar to the last, but with very deep blue purple flowers.

A. patens major. In habit like *patens*, but with very rich crimson purple blossoms.

A. Tugwelliana, *tyrinthiana*, and several others, have not yet flowered; as soon as they do we shall notice them.

The achimenes are getting to be among the most popular plants at the London exhibitions. They are grown in 10 or 12 inch pots, rather shallow, three or more plants in a pot,

and when properly managed, the shoots all tied out carefully and judiciously stopped, they form specimens six or eight feet in circumference, with hundreds of flowers. The facility with which the plants may be retarded enables the gardener to have the plants in bloom from June to December. Some capital hints on their management will be found in our last number.

NEW PELARGONIUMS.—It is remarkable that so much improvement can be made in the pelargonium, after the production of so many choice varieties. It, however, shows that there is no limit to the growth of new sorts. We noticed in our last the collection of seedlings of M. Odier, which has created so much attention in Paris. We have been equally surprised at the beauty of some of the older kinds which have flowered for the first time in our collection, viz., Tyrian Queen, Eurydice, Pulchra, Ocellatum, Mount Hecla, Champion of Devon, &c., &c. We had thought Mr. Beck's seedlings were so fine it would not be easy to excel them, but Tyrian Queen, and Eurydice, are far ahead of Cassandra, or any of Beck's. The richness and distinctness of coloring are surprising. The pelargonium is, in truth, a most elegant plant, and one which is deserving of all the attention it has received.

SALVIA LYONSIANA.—In our last we noticed a new *Salvia*, which we called *Lynesiana*; we wrote hastily, and now correct two errors; one, in saying that Mr. Lyons was gardener to G. Brooks, Esq., when we should have said Ed. Brooks, Esq.; and the other in writing *Lynesiàna* in place of *Lyonsiàna*.

210. BRILLIANTA'SIA OWARIE'NSIS *Pal. de Beauv.* **OWARIAN BRILLIANTASIA.** (*Acanthaceæ.*) Sierra Leone.

A stove plant; growing three to four feet high; with purple flowers; appearing in spring; grown in leaf mould, peat and sand; increased by cuttings. *Bot. Mag.*, 1853, pl. 4717.

A very fine acanthaceous plant, with panicles of purplish flowers, which appear in March. The stem is four angled, and the leaves are large, coarse, cordate at the base, and resemble the sage. It was sent from Sierra Leone by Mr.

Whitfield, and proves a fine addition to stove collections. (*Bot. Mag.*, June.)

211. RHODODE'NDRON DALHOUSIÆ Hook. LADY DALHOUSE'S RHODODENDRON, (*Ericacææ*.) Sikkim-Himalaya.

A half-hardy shrub; growing six or eight feet high; with white flowers; appearing in spring; grows in pot; increased by seeds, inarching, and grafting. *Bot. Mag.* 1853, pl. 4718.

This is one of the magnificent Sikkim Rhododendrons which has now flowered for the first time in England; and it is the one which has excited the greatest interest from the splendid drawing and account of it in Dr. Hooker's illustrated volume of the Sikkim Rhododendrons, "partly from the great size and beauty of the fragrant flowers, almost resembling those of the Bourbon Lily (common white), and partly from the peculiar place of growth, generally in its native localities, like tropical *orchideæ*, among moss, with ferns and *aroidæ*, upon the limbs of large trees." Doubts were, therefore, expressed in regard to its cultivation. Hundreds of plants have been raised from seeds in England, and the plants grow very well, but no one expected to see its blossoms in so short a time, only three years from the reception of the seed. "Mr. John Lang, gardener at Dysart Home (Earl of Rosslyn's) Kirkcaldy, North Britain, has the honor of having been the first to flower this noble plant," and in March, 1853, he sent Dr. Hooker a specimen with a drawing, together with a full account of his management of the plant. As it may interest our nurserymen and amateurs, who may be anxious to possess it, we copy Mr. Lang's communication:—

"In January, 1852, I selected from our woods a vigorous plant of *Rhododendrus ponticum*, with a clear straight stem, about six feet high, removing all the lateral branches, and potting in an eight inch pot. About the end of January it was placed in the stove, where it was soon after inarched with *R. Dalhousiæ*. As the young shoot of the latter began to harden, it was gradually cut through till separated, and the plant was removed to a cool greenhouse to rest. It very soon showed symptoms of making another growth, when it was transferred to the stove, to ripen its wood, preparatory to its

being again put into a cool house as the shoot ripened. Here it did not remain long before it made further progress, and again required the heat of the stove to ripen its third growth. About the end of October a flower-bud was formed, when water was gradually withheld until it was moderately dry at the roots, and the plant was removed to a cool greenhouse for the entire winter. About the third week in February, 1853, it was placed in the stove, and began to show color on the 16th of this month. When the flowers first appeared they were of a greenish color, which gradually changed into a yellow, which also has died away, until it is of the color of the flower sent, and I have no doubt, but, ere the flower drops, it will be nearly white, (as represented in our plate.) I may also state, that the plant has never been exposed out of doors; had it been so, the rusty color on the upper surface of the leaf would very likely have been removed. The bark on the first shoot or growth is of a brown color; but the other two growths are yet green, as shown in the sketch."

This, certainly, is a superb species, and well worthy of a place in every choice collection. Its clusters of large white flowers are in themselves enough to render it one of the most beautiful of Rhododendrons, but when to these are added fragrance it becomes doubly beautiful. The umbels contain from three to five flowers, very large, each flower *four and a half inches long*, and four and a half across the mouth, sub-campanulate. The color is changeable, perhaps pure white in the normal state; but the flower bud is described as greenish; the flower, when open, yellow, gradually deepening to pale orange; which latter color fades, leaving the corolla almost a pure white. In its native country it is often tinged with rose.

It is a native of East Nepal, Sikkim, and Bhotan, at elevations of from 6000 to 9000 feet, in humid forests. (*Bot. Mag.*, June.)

REVIEW.

ART. I. *A Practical Treatise on the Culture and Treatment of the Grape Vine ; embracing its History, with directions for its Treatment in the United States of America, in the open air, and under glass structures, with and without Artificial Heat.* By J. F. ALLEN. Third edition, enlarged and revised. 1 vol., 12mo, pp. 330. New York: 1853.

A COPY of the third edition of this work has been laying upon our table for some time, awaiting a notice. In the main it differs but little from the second edition, but the present volume is in a more convenient form than the last.

Mr. Allen says in his preface, that "in the present edition it has been my plan to give all shades of opinion, for every variety of climate; that wherever located, some remarks might be found appropriate to the situation, provided it is: within the latitude suited to grape culture. My own opinions are fully expressed, and, as the views of others have been added also, and wherever we differ freely stated, the reader can select for his own adoption, that system which recommends itself as the best to his mind."

"The material of the former edition, which is simply the details of my practice," being in this, unchanged, we have little to add to what we have already said in our former review of this volume. Mr. Allen still adheres to the use of dead carcasses of animals for borders, and continues his chapter on the "use of manures," in which he quotes largely from our articles on the culture of the grape, which have appeared from time to time in the Magazine.

We have one fault to find, that is, that Mr. Allen did not expunge the laudatory notices of the Sage Grape; a humbug of this kind is too great to find a place in a work intended to be placed in the hands of amateur cultivators throughout the country. Mr. Allen may argue that an account of it is not a recommendation by him. It is, however, nominally so, and he should have struck out from this edition every word in reference to such a worthless grape.

MISCELLANEOUS INTELLIGENCE.

ART. I. *General Notices.*

VILMORIN, ON THE FORMATION OF RACES, VARIETIES, AND HYBRIDS IN VEGETABLES.—(Communicated by A. HENFREY, F. R. S. &c.)—M. Vilmorin is well known to be more than ordinarily competent to speak upon this question, both from practical acquaintance with the subject, and study of the theoretical question. His observations and experiments form a continuation of those of his father, and date from half a century back. In the *Revue Horticole* he has explained his views, and they are well deserving of the attention both of the scientific man and of the practical cultivator. The following fragments, selected from his essay, and accompanied with a few notes, were published by M. Alphonse Decandolle, in the *Bibliothèque Universelle de Genève*, for August, 1852:—"RACES:"—i. e., modifications of the species perpetuated by seed.—"If we reflect on what is occurring in a seed just sown, and about to give birth to a new individual, we may regard it as attracted—as regards the characters which the nascent plant is to possess—by two distinct and opposite forces, (the word *force* is only used here in a comparative sense, and to render more clear the effects which we have to describe. It will be readily imagined that the cause—probably very complex—which produces these, cannot be classed with a *force* capable of direction and measurement, such as is understood by geometricians). These two forces, which act in contrary directions, and from the equilibrium of which results the fixity of the species, may be thus conceived: the first, or centripetal force, is the result of the *law of resemblance between children and parents, or atavism*; the result of its action is to restrain within the limits assigned to the species the aberrations produced by the other force." The author here takes the word *atavism* in a wider sense than is commonly adopted, and departs from the sense indicated by the Latin word, *atavi*, forefathers. The term atavism is applied to the resemblance of individuals—not to their parents in the first degree, but to ancestors of more distant connection, (*Decandolle: Physiologie Végétale*, vol. ii. 737). However, M. Vilmorin soon returns to the common meaning of the word (Alph. Decandolle). The second or centrifugal force, resulting from the *law of individual differences*, or of *idiosyncrasy*, causes each of the individuals composing a species, supposing them even born from a single individual or couple, to present difficulties which constitute its peculiar physiognomy, and produce that *infinite variety in unity* which characterizes the works of the Creator. For the sake of simplicity we have just supposed atavism to constitute a single force; but when we reflect on it, we see that it presents rather a collection of forces acting pretty nearly in the same direction, and is composed of the influence or individual attraction of all the ancestors. Now, to facilitate the comprehension of this force, we must first consider abstractedly the form of resemblance to the mass of ancestors, which may be regarded as the attraction of the *type* of the species, and for which we shall

reserve the name of atavism; then we must consider separately, and in a more special manner, the attraction or form of resemblance to the actual parent, which, less powerful, but acting at a smaller distance, tends to perpetuate in the progeny the characters peculiar to the immediate parent. So long as the parent has not departed in a material degree from the type of the species, the two forces act parallelly, and are blended; and the variations which may follow in such a case, through the law of idiosyncrasy, may present themselves indefinitely in all directions, without exhibiting a peculiar leaning to any one. It is different when the actual parent has varied in a marked manner from the type; the force of resemblance to the actual parent then becomes combined with that of the individual variations, and the result is an excess of deviation in the direction of the resultant of these two combined forces; or, if it be preferred, the individual variations will then radiate, not round the common centre of the type, but round a point situated on the line which separates the type from the variety first obtained. Abandoned to nature, individual variations almost always perish in the superabundant mass of individuals which are unceasingly undergoing destruction. Hence the fixity of natural species. But when collected by man, these variations are protected, their descendants become multiplied; obeying then the more complex laws which govern them, they produce their numerous modifications, which man has been able to fix for his own service. It is thus also that the influence of man, in exclusively choosing modified individuals, to multiply the progeny, supplies a counterbalance in his constant efforts to the equally constant force of atavism, and thus succeeds in *emancipating* or fixing modified races. From the preceding considerations it will be evident that one of the points, which we regard as most essential, consists in combating, as efficiently as possible, the force which we have called *atavism*. Now this force, less direct in a manner than that of resemblance to the immediate parent, may perhaps act with great persistence. If I might use another comparison, borrowed from the laws of mechanics, I would say that on account of the distance of its point of origin, its decrease takes place in an almost imperceptible measure, in the course of the small number of generations on which man can exercise influence; while the decrease of the other force (that of resemblance to the actual parent) goes on in geometrical progression. I have therefore been led to set up a theory which, however, I only present here now with extreme hesitation, on the subject of the course to be pursued in endeavoring to obtain varieties from a plant not yet subjected to modification. To obtain from a plant not yet modified varieties of a kind determined beforehand, I first apply myself to producing variation in any direction, selecting for the reproducer not that one of the accidental varieties which approaches nearest to the form I wish to obtain, but simply that which differs most from the type. In the second generation the same care would lead me to choose a deviation the greatest possible at first, then the most different from that which I should have chosen in the first place. The necessary result of following this course through several generations is an extreme tendency to vary in the product thus obtained. A further result—and this is the principal point in my opinion—is, that the

force of atavism, exercised across very divergent influences, will have lost a great portion of its power; or if I may again have recourse to that comparison, will act in a broken, instead of a straight and continuous line. It is only after having attained this result, which I shall call, if I may use the word, "destroying the polarity of the plant" (*affoller* is the word used), "that we should commence the pursuit of the variations approaching the form which we wish to obtain—a pursuit which will be facilitated by the enormously increased number of variations produced by the foregoing proceedings. We must then avoid variations which may present themselves, with the same care as we sought them at first, in order to give to the race we are endeavoring to form *constancy of habit*, which will be so much the easier to obtain, that the atavism—that incessant cause of destruction of the races of human creation—will have been weakened, by the intermediate links through which we have forced it, to exercise its influence. It will be seen, then, that in our view there are two very distinct phases in the pursuit of varieties—phases during which the courses to be followed are diametrically opposite. Up to the present time the first has been completely abandoned to what are called sports of nature; and the care of horticulturists has been limited to propagating and fixing accidental varieties. Perhaps it will appear premature to advance that this first phase may be subjected, equally with the second, to the influence of man. Nevertheless, the facts which have led me to this opinion are now sufficiently numerous to allow me a well-grounded hope of being able, before long, to show examples of the application of this method. For some time past there has been an appearance of proceeding in this direction, in the recommendation of artificial fertilization, for impressing on a type previously invariable, a first modification which may tend to a large number of others; but this plan has been applied most erroneously hitherto rather to varieties than to species. It seems requisite here to enter into certain special details, in order to render comprehensible the idea I entertain of the part which hybridity may play in the *creation of varieties*. The number of plants really hybrids, or results of the crossed fertilization of two distinct *species*, is exceedingly limited; and even their existence is denied by some physiologists who refuse to their *mules* the power of reproducing by seeds. At the same time, certain sets of varieties in actual cultivation have, in my opinion, an evident hybrid origin. We may imagine in this case that the hybridation has only acted in the direction of destroying the polarity" (*affollment*), "and that the varieties to which they may give birth will only constitute distinct races, through a certain number of generations. As to the custom of fertilization *crossed between varieties*, they enter into the same mode of action, considerably increasing the extent of variation in the varieties already not very stable by themselves. It is to this class that belong the enormous quantity of hybrids with which florists fill their catalogues. Multiplied by divisions, their varieties form for them the source of interesting operations; and their excessive variability then becomes an advantage, since each sowing of their seeds produces new forms, calculated to satisfy the incessant desire for novelties of this kind manifested by amateurs.—(*Gard. Jour.*)

THE LILAC.—This old and favorite ornamental deciduous shrub, like the rose, obtains a place wherever trees and flowers will grow. It is especially popular with the poor, who have only a small patch of ground, and cannot afford time to give much attention to what they grow for their pleasure. Like the name of a great man, it finds its way into every nook and corner, and is certainly the first to be selected by every humble cottager who has taste enough and time enough to cultivate a few flowers. The lilac is one of the hardiest plants grown in England. It will withstand our severest winters; and nothing but a continuous cold north or east wind has the least effect upon it. But even in such a wind, and during a severe frost, it is but little injured, save when exposed to an incessant current; then, of course, like everything else, the lilac will give way. You may cut it down, but it won't be cut up. The branches may be killed to the ground, but others will rise on the return of fine weather. Then, again, the lilac is one of the very first to bud and blossom in the spring; and it is green long before others of its compeers are well out of their winter's sleep. Like the buttercups in the meadow, its very appearance speaks of summer; and associated with the bright yellow laburnum, its flowers produce a charming effect by the waysides. With all its recommendations, however, its hardy constitution, its graceful habit, and its beautiful flowers, the lilac—it must be confessed—has its faults, or rather fault, for it has but one—its tendency to push up shoots at the root, which, under certain circumstances, make it a mere net for all sorts of passing litter or rubbish. If an old shoe is to be thrown out of sight, there is no place so fitting as the poor lilac-bush. At the fall of the leaf, all the other trees and bushes seem as if they would make quite a “butt” of our good-natured acquaintance, and keep on “shying” their cast-off clothes into its lap—at least, so long as the game lasts. Indeed, I have sometimes fancied that its name must have some connection with the idea of a “save-all,” a net or trap; for it would take me some time to describe all the miscellaneous and heterogeneous articles of which it is often made the depository during winter. But I do not think such an account would be interesting enough, especially as many of the items which I find now and then have no possible resemblance to the foundlings of the Excise-office. I must protest, however, against planting my old favorite beside the railing of squares and other enclosures, where it is so likely to be made the receptacle of old shoes, broken bottles, dead dogs or cats, and the lighter articles which are “wafted by the early breeze,” in the form of tailors' refuse, straw, and leaves. Why should the lilac be selected to form the laughing-stock of every passer-by.—(*Gard. Jour.*)

CULTIVATION OF THE RANUNCULUS.—Finding that the ranunculus, comparatively speaking, has little or nothing said or written to encourage its growth, or sing its justly-deserved praise, I trust that a few lines in your magazine will prove useful to somebody.

Which of all Flora's gems can compare with it? True, some prefer the flour of oats, and some of barley, but most of finest wheat, to all creation's flowers; whilst others quite as lustily cry, of all the garden flowers, the *caruliflower* for me. Now, if I might choose in wide creation's round, with

leave to take but one, the flower that gives a smile to the cotter's fireside, when the cares and toils of day are over, would be mine.

But to return again to Flora's garland. How just the remark, what so graceful as the fuchsia, or so gay as the geranium? nay, what so chaste as the auricular, or what so lovely as the rose? and most of all magnificent, the dahlia? Qualities and names have been assigned to others, as sweetness and humility to the violet; whilst the title of Queen of the Garden has been justly given to the tulip. But what, shall we ask, has been reserved for the subject of this paper, that cannot with equal propriety be assigned to any other?—most certainly symmetry. The ranunculus, for symmetry, truly surpasses every other flower, and, doubtless, gives us the true idea of form in every double flower.

Now, if, after I and many of my neighbors had given up growing the ranunculus for some years, in consequence of repeated failures, I give a description of a small plot and the treatment of them, and some of your readers should be induced to give them a second trial, and succeed, as I have done, I am sure they will be highly gratified.

Before doing this, I may here say that the ranunculus, anemone, and iris, were grown by me, with considerable success, more than thirty years ago. Those being the favorites of my youth, great care I took of them, and often were they admired, and I dare say justly so, but never had I anything like, nor ever have I seen anything like the batch I wish to describe to you, giving you the treatment, which I consider the entire cause of their uncommon vigor and beauty.

Last autumn, writing to my friend, Mr. Lightbody, on business matters, he offered me some of his fine ranunculuses. I said to him that myself, with many other persons, had given them up entirely, it being so difficult to get a fine bloom. In his reply, he said that he would make it a very easy thing, if I would attend to the following directions, which were very simple and very kindly given. Those directions being quite free from any perplexing nostrums, I at once agreed that he should send me a few of the very best he had. Those I soon received, forty in number, according to his catalogue price, amounted to nearly eight pounds.

But what were the accompanying directions? As near as I can recollect, they were these: "The ranunculus must have something to live upon. In the autumn, I throw out a trench, from one foot to eighteen inches, according to the depth of the soil, putting at the bottom some well-rotted cow dung or old hot-bed manure, filling it up again with the same soil. In the month of February rake it very fine, plant exactly an inch and a half deep, destroy all weeds and vermin, press the soil firmly about the necks of the plants, and I have no doubt you will have what will gratify you. One of the most important things to be attended to is not to let the roots remain in the ground after the foliage has changed in color. If you want any other information, I shall be most happy to give you it." Being then in possession of those valuables, I thought I must once more try my skill: I therefore made choice of a bed two yards from a south wall, throwing out the soil as directed, and collecting a few baskets of well-seasoned dung from a cow

pasture, I put it at the bottom, sixteen or eighteen inches below the surface, covering it up with the soil thrown out. In the month of February I made the surface fine and even by raking the soil; I then drew off the soil to the depth of an inch and a half or two inches, marking the place where each root should be planted by putting down a small pinch of silver sand, in which I inserted each root; and now, in order to carry out the directions given me, and that I might not cover them over much, or too little, I stuck in a few pegs, leaving just two inches out of the ground, so that I might cover them very exactly, and when the soil had settled, they would be just an inch and a half deep.

Thinking that ranunculuses often suffered from droughty weather, I tried to obviate this by setting up a thin screen of branches, six or eight feet high, on the south side of the bed, partially to break the rays of the sun, but not altogether to exclude them. This done, they lay still for some weeks, when all came up, except No. 1, which, like the bubbles on the river after which it is named, had glided forever out of being. The weather now being dry, I occasionally sprinkled them over with water; and being fairly up, in order to compress the soil around the necks of the plants, I carefully walked through and through. Under this treatment they grew most luxuriantly, raising my expectations every time I inspected them, especially as all who saw them declared they never beheld such plants. At length they nearly all came into bloom; but now comes my task of giving a correct description of their beauty and growth.

Mr. and Mrs. Archibald Johnson were amongst the giants of the bed, most beautifully formed and sweetly marked; Archibald looking over the head of his fair lady full four inches, she having raised her lovely face no less than seventeen inches high. Those are gems of the first water. Near by, were the lovely Jenny Deans and Nydia, with delicate red edging, on pale yellow ground, rising to the height of seventeen or eighteen inches. Roxalana, quite as stately, very large and showy, but not quite so chaste as those above. Petrel, seventeen inches high, certainly more like an eagle, with gold-tipped wings, rising to meet the sun, than a bird of storm, was brilliant yellow, tipped with red, of the finest form. Felican, rising to the same height, exquisite in form, with a clear rose edge, on white ground. Phroine, William Bradshaw, Aboukir, Zebina, Cyra, Prince of Wales, and Commodore Napier, with Thomas Hood and Little Nell, all attained to fifteen inches, and formed an assemblage of beauty rarely equalled. Liffey, Sultana, Delphos, Ashwelthorpe, Baritola, and Hon. Robert Wilson, fell an inch lower than the above group, still they were equally beautiful. Philomel, Charybdis, and Claudiana, beautiful, especially the last, were thirteen inches. Emily, Dr. Horner, and the lovely Anne Hathaway, were one foot. And now, to end this long, and, I am afraid, tedious description, I shall just notice the lowest, rising only to eight inches here, Mackenzie, the author of "The Man of Feeling," seems to stoop to those chaste, lofty, and beautiful personages around him, to adore and admire. I may just add, that although the flowers were not very much larger than usual, there were those amongst them of the finest form and color, from two to three inches over, while some had stems a quarter of an inch or more thick.

Now, if by this account of my little plot of ranunculuses, and the simple directions here given, I induce some one to adopt the plan and succeed as well as I have done, I shall consider my time not entirely lost. Here it may be well to state, for the convenience of those who may wish to obtain a collection of roots to begin with, that Mr. Lightbody, of Falkirk, and Messrs. Tyso & Son, of Wallingford, from whom priced catalogues may be had, are amongst the best growers in the kingdom.—(*Midland Florist*.)

CULTIVATION OF THE POLYANTHUS.—In complying with your request, I must confess to having much more confidence in cultivating the polyanthus than in writing an article for the press. But if any remarks, given in my plain humble way, can be found at all interesting to the readers of your widely-extended and justly-esteemed useful publication, I shall be most happy in communicating all and every particular connected with my simple mode of cultivation and management, feeling, as I do feel, most anxious to see this much neglected, though deserving flower brought into a more extensive and healthy state of cultivation.

I regret much to hear such repeated complaints of failure in the cultivation of the polyanthus, which I find much easier, and much less trouble and expense than most other florists' flowers. Three things necessary to the insurance of success are, first, the purchase of good plants from a healthy stock; second, proper soil and situation to grow them in; third, regular attention;—the latter being required to a much greater extent in pot than bed cultivation, therefore I should not advise those who are about to commence, or whose gardens are far from home, to attempt growing them in pots.

But to commence forthwith, as there is no time for delay, select a spot open to the sun throughout the winter, and free from overhanging and drip of trees, mark two feet in width, any length required, allowing eighteen or twenty inches for path—one end of the bed to point east, inclining a little south, the other end will be, of course, west, the same inclination north, which will give the required aspect. Measure the length marked out, and procure some fir poles, four inches thick and five feet long, have them sawn down the middle, and thus each will make two posts, one of which will be required to every three feet your bed is in length, and one over. Provide also some strips of red deal, one inch thick and two broad, for edging the bed in front and at both ends; and a few stakes, one foot long and two inches thick, to be driven down about three feet distant, to the extent of the bed, and the strips nailed on outside, next the path; also four pantile laths, the full length required from end to end. If the ends of the posts, stakes, and strips of deal are brushed over with hot gas tar, mixed with one-fourth of linseed oil, a few days previous to being put down, they will last much longer. All being in readiness, stretch a line, three feet six inches high, from end to end, to the extent of the back or south side of the bed; then put down the posts till the tops are even with the line, and fasten them firmly; then nail thereon the pantile laths, commencing six inches from the surface of the bed for the first, and the rest following with equal space to the top. Dig out all the soil a foot deep, clear and regular, and put in a

layer of any decayed vegetable refuse, such as hedge clippings, rotten sticks, or the like, that will admit of pressing down equally all over with the back of the spade till about three inches thick. Upon this a moderate quantity of soot should be sprinkled regularly all over with the hand. Then a stratum of well decayed cow or pig manure, the same thickness as the vegetable refuse. This also must be sprinkled with soot, but very slightly, or it will injure the plants. It is to prevent worms rising, which often make sad havoc in a newly-planted bed, by rooting up the plants and dragging them into their holes. If on cold clay land, use sheep manure, mixed with one-fourth of sandy turf. Fill up the bed to within an inch of the top edge of the strips (which may now be put down for border or edging for the bed) with fresh fibrous loam that will easily divide with the fork or hand; then rake all over carefully, and put on a riddling of nice light soil, free from manure, one inch thick. This completes the bed ready for planting, which must be finished by the end of this month. Three plants in a row, across the bed, and eighteen inches between the rows, will be quite thick enough. Betwixt every two rows may be planted the double blue and red hepatica, alternately with gentinella and double primroses. In February, a root of the red and white turban, and ranunculus in varieties may be dibbled in betwixt every plant. These I find to bloom much better here than in open exposure. When these, that is the turbans and ranunculuses are past flowering, they must be taken up, and a few ten-week stocks put two in a row, about three feet apart. They will do no harm at this season of the year, but rather good, by keeping the plants cool. As it will be necessary for the bed to be made much larger than will be required for the few polyanthus got in the first season, this will be found a desirable plan for making use of spare room, and will render the bed gay and attractive during the hot summer months, and thereby draw attention towards the polyanthus, so essentially necessary in summer, with respect to watering, &c. It will be advisable to nail some calico, canvas, or matting, from the top lath to the bottom one, to shade the plants till they have taken root. Two or three weeks will be sufficient, when the shade may be taken off, and some good strong plants of the double flowering currant planted at the back or south side of the laths, two feet distant. Blooming with the polyanthus, it adds much to the beauty of this early "treat," affords good shade in summer, and, losing its foliage in winter, gives access to the sun's rays, and is in all respects the best thing I know of for the purpose.

I think I have now shown that the polyanthus border may be rendered as ornamental and attractive as any part of the garden; and should these few remarks be found worthy of insertion, I shall endeavor to give a few more next month.—(*Midland Florist*.)

CULTIVATION OF THE CALCEOLARIA.—It has often been to me a matter of great surprise that the large flowering, or, as they are generally called, *herbaceous* calceolarias, are not more cultivated. You may visit, in this neighborhood, a dozen gentlemen's gardens, and not see more than a dozen plants of this beautiful section of calceolarias, and those few but miserable,

half-starved, half-choked specimens, which, for the credit of both the gardener and calceolaria, would be better on the rubbish heap.

If you inquire the cause why they are not grown, ten out of twelve persons will confess "that they are beautiful things;" but, says one, they are so subject to the green fly; another says they are so bad to winter—I invariably lose them at that season; a third says that they die as soon as they have done blooming; and one good gardener told me the other day, "If a person gets them to do well once in his life-time, he has had his share of good luck." Now in answer to the first, are not geraniums, cinerarias, and a host of other plants which these men "grow respectably," subject to the green fly? and will not the smoke of tobacco, with which he kills the fly attacking his geraniums, kill the fly which is on calceolarias? As to their being hard to winter, it is more fanciful than real. If a person attempt to keep the "old plants" it may be true; but if cuttings are struck in August or September, and be potted in 4-inch pots in October, and kept in a cold frame until Christmas, then placed on a shelf in the greenhouse "near the source of ventilation," not kept *too wet*, not more than one in a hundred, if even that, will go off in winter.

Then as to being subject to die soon after blooming. Now this is the *critical time*, I allow, but it is as much the gardener's neglect as the tendency of the plant; not but he has many extenuating circumstances, for it happens that when the calceolaria requires most attention he has, in consequence of other duties, least time to attend to them. Perhaps circumstances have previously tended to exhaust the plants; such as blooming them in small pots, and in a house where *fire heat* was employed, perhaps for grapes, &c., or probably the sun shining *direct upon them*, and not having sufficiency of air. All, or some of these causes, together with the large quantity of bloom they invariably produce, will, I have no doubt, cause exhausted nature to give in.

But if the grower of calceolarias would consider of where they are natives, and under what circumstances they there grow, it would point to an entirely different mode of treatment, and the complaint would vanish, at least to any serious extent.

They are natives of the Andes Mountains, through Chili, Peru, and Patagonia, and there form a belt round the hill, not far below the *snow-line*, and the south winds from the Pacific Ocean blow on them, loaded with moisture, during eight or nine months in the year.

Now, being *natives of the hills or mountains*, (which shows that they want a light soil and abundance of air,) *not far below the snow-line*, that the melting snow in summer will plentifully supply them with *cold water*, which plainly says *no codling* for me. Most plants from warmer countries are benefited by having their *roots warmer* than their *branches*; but with calceolarias this is not the case, which shows that we should not inquire from what *country* a plant comes, but under what circumstances it *grows* in its native habitat. *The south wind blows upon them from the Pacific Ocean for so many months in the year*, again shows that air, "abundance of *moist air*," (for the wind blowing from the sea will be loaded with moisture,) not dry, parching

winds of our March, nor the *hot dry air* of our July and August, but an imitation of our soft balmy days of April and May. Though they enjoy "abundance of moisture," actual *stagnant damp* is certain destruction.

If the cultivation be carried on on the above principles, these plants, when in bloom, will be clothed with fine green, healthy foliage, which is "a certain sign that the roots are active." When the plants have done blooming, cut off the flower-stalks, but not too low, "just above the foliage," and remove them to a *cold frame*, facing *north* or *east*. If any green fly appear, immediately fumigate well with tobacco. In the day time keep the lights *close*, except in *very warm* weather, when tilt them; shade also from the glaring sun. At night *remove* the sashes altogether, (except in very heavy rains,) as the night dews are very beneficial; by this treatment they will soon begin to throw up young shoots.

Propagation.—Select a place shaded from the mid-day sun, say under a north wall or hedge (not under the drip of trees;) spread six inches of rough cinder or coal ashes over the space requisite to hold the number you want, then put on six inches of the following compost:—leaf-mould, loam, and silver-sand, in equal quantities; the whole passed through a fine sieve. Let the *rough* be placed next to the ashes, and over all this put half an inch of silver-sand; water the whole; place on the land lights to mark the places. Take young shoots, as above-mentioned, in the beginning of September, prick them in the prepared bed, and place over them the glasses, keep them close, syringe them frequently, and not many will fail to grow.

Time of potting.—Pot the cuttings, when rooted, into four or five-inch pots to winter in. In February give them a shift into six or seven-inch pots, and when the roots reach the outside of this soil, put them into their blooming pots, say from eight to twelve-inch pots, according to the probabilities of the plant.

Soil.—For wintering, loam and leaf-mould, one part each, and half a part of sand; for February potting, loam and leaf-mould, one part each, sand and rotten dung half a part each, and for final potting add more dung.—(*Floricultural Cabinet*.)

ON THE CULTURE OF ACHIMENES.—Few plants are more beautiful than these, or will better repay careful attention and management. In order to obtain fine bushy specimens, the following treatment has been found useful. A box, or cutting-pan, is prepared, by filling three parts of it with a compost of equal parts of loam and leaf-mould, on which the roots are laid, and covered two inches in depth with the same compost. These startings are in January for May and June blooming, in March for July, August, and September blooming, and in the latter end of May *A. coccinea*, *A. rosea*, *A. Jaquii*, and *A. pedunculata* for December and January. Until the shoots have appeared above the surface they must be kept moderately dry. When the plants are about two inches high, raise them from the box or pan in which they were started, and put them in their flowering pans, leaving a space of two inches between each plant, and using the same compost as recommended above, enriched by the addition of one-fourth part of old mushroom-bed dung, which will help to meet the great demand on

the soil while the plants are in bloom, and by increasing the porosity of the soil, will prevent water from stagnating in the pans in the early stages of their growth. Too much care cannot be exercised in watering when the plants are in their infancy; if the morning's sunshine catch a leaf in a moist state, either from vapor or careless use of the watering-pot, in a few minutes it will become brown and crumple up, and be materially injured, if not destroyed. I have frequently had to carry the plants from the front to some shady place in the back of the pine-pits, when the atmosphere of the pit was loaded with moisture. Later in the season there is little danger of their suffering. A gentle syringing in the afternoon, with copious waterings of liquid-manure at least twice a week, when they show bloom, will add to their vigor, enrich the color of the blooms, and prolong the flowering season. When the plants have taken to their new quarters, pinch the centres out of each leader; they will then break out with a fine array of moderately strong laterals. One pinching I find sufficient for *A. coccinea* and species of a similar habit; twice for *A. grandiflora*, *longiflora*, and those of a like semi-bushy habit, whilst the straggling nature of *A. pedunculata* requires three or four pinchings to form a dwarf bushy plant. Let staking be proceeded with early; for if the shoots once get out of order, half their number will be disjointed in raising them to their proper position. The stakes should be left at least nine inches above the plant to tack the stems to, in their upward flowering progress.—(*Gardeners' and Farmers' Journal*.)

ON THE CULTURE OF THE ANEMONE.—The cultivation of this desirable flower approaches closely to that of the *Ranunculus*. If grown as an ordinary garden flower, seedlings will be found the most desirable, as they will ultimately prove of the least trouble, and most certain to produce an abundance of bloom—the only drawback being a deficiency of double flowers, which, in our opinion, is more than made up by the greater certainty, and immense supply of bloom. The named double varieties require more attention. The soil should be prepared with some degree of care, both as regards the quality and proper preparation before planting. A fresh, rich, loamy soil, inclined to a sandy quality, is the best suited for the purpose. The bed should be dug full eighteen inches deep, being frequently turned, that it may be thoroughly sweet and fit to receive the roots. This is a most important point, and should be particularly attended to; for if the soil is foul, a failure will surely be the consequence. It is far better to defer planting for a week, or even a fortnight, than risk planting in impure soil. When the latter is in proper condition for use, it should be levelled, and about five or six inches being thrown off the top, add a layer of decomposed cow-manure, of about four inches, and stir the latter in with the sweetened soil four or five inches in depth. This done, cover it with the soil thrown off, and leave it to settle for a day or two, when it may be raked. Draw off the large stones and coarser parts of the soil, and reduce the bed to an even surface, ready for planting; first marking it out in rows, about five or six inches distance each way. Proceed by planting the roots two inches deep, taking care that the eyes are placed upwards, which by a little careful ex-

amination will easily be discovered, for there are generally a few of the small fibres left on the under side of the roots, which will prove a guide to the inexperienced. When the roots are all planted, carefully draw the earth over them with the back of a rake, and be sure they are all safely covered. The time of planting for an early bloom, is about the middle of September. These will flower at the beginning of April, and will continue in flower for three weeks and upwards. If the season be favorable for a second course of bloom, a plantation should be made near the middle of October, or towards the latter end. These will succeed the former; and if some roots be kept in reserve, and be planted in January or February, taking the opportunity of fine weather in either month, as it may happen, they will succeed the second plantation, and thus afford a continuance of flowers for nearly two months.—(*Id.*)

ART. II. *Domestic Notices.*

GLAZING SASHES WITHOUT PUTTY.—Dear Sir,—In a number of the "Philadelphia Florist," which I have just received, I perceive an article signed "R. B. Leuchars," extracted from your valuable Magazine, on the subject above, which by some means I overlooked when it first appeared. I am very jealous of the credit due to anything in American horticulture, from observing the tendency of English journalists to unnotice, or even to underrate anything American. If you and the Editor of the Florist are so lamentably ignorant, as Mr. L. asserts, I fear I am in the same category; for, on the appearance of your article, I really did believe we had something American. I have been a very extensive reader of the foreign horticultural journals, and recollect nothing, nor can find anything in my files, to justify this charge of ignorance against "I, or me, you, them, and others." As it was as easy for R. B. L. to give "chapter and verse," when speaking of things "to his knowledge," I hope he will accord to me the privilege of calling on him for his reference. If the system is not American, what paper or writer first published it? and where?—BETA, *Philad.*, May, 1853.

We quite agree with our correspondent, and would like to have Mr. L. produce the "chapter and verse." We inserted Mr. Leuchars' note without comment, but we do not confess to any ignorance upon the subject. We still believe that the houses which we built in 1833, were the first ever set without putty, upon what has been, and we think justly, termed the American system. Mr. Loudon, who, up to his death, recorded every improvement of this kind in England, does not mention or allude to such a plan of glazing, in any of his works or his Magazine. The editor of the *Florist* has no companion in his ignorance upon this subject; and as we presume he does not endorse the opinions of all his correspondents, he must not suppose we, in all cases, endorse the views of ours.—ED.

TROUBLE AMONG THE PROFESSORS.—We have been much amused to witness the discussions in the *Country Gentleman*, *Working Farmer*, and *Boston Cultivator*, in which our friend Prof. Mapes gets a more terrible punch under the ribs, than that "cruel one" which we read in his *Working Farmer*, (the only information we ever had of it,) the late Mr. Downing gave us, and which seemed quite relishing to the professor. It seems the *Country Gentleman*, by mistake, called Mr. S. W. Johnson, Professor Johnson, of Yale College. This Prof. Mapes was highly indignant at, and requested that paper to apologize for the error, as Mr. Johnson's analysis of phosphate of lime did not agree with that of Prof. Mapes, and prejudiced the sale of the article which he manufactures. Whereupon the *Country Gentleman* would esteem it a favor to be "informed at what institution Professor Mapes had the honor to be professor," and what institution did itself the honor to confer upon the Editor of the *Working Farmer* the degree of LL.D.? It does not doubt the legitimacy of the prefix or suffix to his name, but only wishes to know what college deserves the credit of thus distinguishing the gentleman. The whole thing is a humbug. Nobody cares a fig whether Mr. Johnson is Professor at Yale College or not, so long as he shows by his practice and analysis, that he is a thorough chemist; and nobody cares whether Prof. Mapes is professor in any institution or not, or has the appendage to his name of LL.D., if he shows he is a good chemist. Prof. Mapes, with the title of LL.D., should be above such petty jealousy, as to wish to deprive Mr. Johnson of the simple prefix of Prof., whether he was so or not.

ART. III. Societies.

NEW YORK HORTICULTURAL.

The semi-annual exhibition of this society was held at Metropolitan Hall, New York, on Tuesday and Wednesday, the 14th and 15th of June. The hall was well arranged to show off the plants, and the entrance was tastefully decorated and enriched by fine conifers in pots.

Mr. Cope, of Philadelphia, contributed three leaves of his *Victoria Regia*, which were displayed in a large octagon-shaped tank in the centre of the hall. The show of pelargoniums was excellent, and the specimens by Mr. Chorlton, of Staten Island, and Mr. Hamlin, gardener to W. C. Langley, were well grown and freely bloomed.

Among the new plants were *Hoya bella*, *Clerodendron fallax*, and *Cryptoceras reflexas*, from Mr. Duncan. *Ixora coccinea* and *Begonia luxurians*, from L. Menand, Albany; Mr. M. also sent *Stanhopea grandiflora*, *Calantha veratiflora* and *Blétia hyacinthoides*, each in full flower. A collection of twelve seedling verbenas was contributed by T. Dunlap. Mr. Lenoir sent *Mazeppa*, *Princess de Navarre* and *Madame de Seviègne*, three handsome French varieties.

Premiums were awarded for flowers, fruits and vegetables, but as we shall probably have a full report, we omit them till our next.

AMERICAN INSTITUTE.

The schedule of premiums for the next great Fair of the American Institute, to be held at Castle Garden, New York, October 4th, has been published, and may be had of the Cor. Secretary, A. Chandler, Esq., office of the Institute, Broadway. The prizes are numerous and very liberal, and must create a great competition among the many enthusiastic agriculturists and horticulturists of the city and neighborhood.

The following prizes are offered for fruits:—

For the choicest display of fruit of all kinds, silver cup, \$15. Second prize, for the same, \$10, and other prizes.

For the greatest number of apples, silver cup of \$8; and other prizes.

For the best variety pears, silver cup of \$8. Best Winter pears, not less than 24, \$8; and 5 other prizes.

The prizes for dahlias, bouquets, and cut flowers, are numerous and liberal.

CAYUGA COUNTY HORTICULTURAL.

The first exhibition of the Cayuga County Horticultural Society was held at "Stanford Hall," in Auburn, on Friday, the 17th day of June, and it presented a fine display of flowers, fruit, and vegetables. The attendance of visitors was very large. The articles presented for exhibition were very tastefully arranged upon the several stands, by the committee appointed for that purpose, which added much to the display.

The display of strawberries, according to the report, was very fine; there were 13 contributors, and fifteen or twenty varieties shown. P. R. Freeoff exhibited 13 vars.; R. G. Pardee 13 vars., and Dr. A. Thompson 4 vars. Mr. Pardee had in his collection, the *Crescent Seedling*, but as no particular notice of it appears in the report, we conclude it has failed when in comparison with the older sorts. The premiums for strawberries were awarded as follows:—To Mr. P. R. Freeoff, for the best and most extensive collection, \$3. For the 2d best, to A. V. Pulseifer, \$2. For the *best and finest flavored variety*, to Henry Morgan, for Hovey's Seedling, \$2. For the 2d best, to S. A. Goodwin, no names given, \$1. For a choice seedling, to Geo. Clapp, \$1.

A large and fine display of plants and flowers was made, from upwards of 40 exhibitors. There was also an excellent display of vegetables for the season. Liberal premiums were awarded for each.

PENNSYLVANIA HORTICULTURAL.

The stated meeting of this Society was held on Tuesday evening, June 21st, in the Chinese Saloon, Philadelphia,—Gen. Patterson, President, in the chair.

The display was excellent in each department. Among the plants might be mentioned in special commendation a few only. In Mr. Buist's collection were *Medinilla magnifica*, really very handsome, and in flower, and *Tecoma jasminoides rosea*, both presented for the first time, and choice fuchsias, and *Veronica Andersonii*. In Mr. Lennig's were a fine plant of *Gardenia Stanleyana*, in flower; also *Clerodendron Bethuniana* and *Medinilla Seiboldii*, new, and shown for the first time, and a beautiful collection

of Gloxinias. In John Bell's, West Philadelphia, were *Delphinium Hendersonii*, *Siphocampylos nitidus*, *Achimenes Beaumannia*, *A. grandidiissima*, *Tillandsia* sp., from Mexico, new, and brought for the first time; *Nierembergia gracilis*, fine specimen, and six new gloxinias. In Mr. Cope's, were *Siphocampylos nitidus* and *Eranthemum semperflorens*, of recent introduction, six beautiful fuchsias, a dozen choice plants, and cut carnations. In W. W. Keen's, West Philadelphia, were six choice fuchsias and a dozen select plants. Mr. Dundas' gardener—a handsome array of a dozen fuchsias on one table, and six gloxinias, choice sorts, with *calceolarias*, etc. H. Pratt McKean's gardener, Torrisdale—six of the finest fuchsias shown. Robert Cornelius' gardener brought a well grown plant of *Campanula pyramidalis* in profuse bloom. Bouquet designs and baskets were exhibited by T. Meehan, T. Meghran, John Bell and R. Kilvington, all in good taste. Mr. Meehan's basket had a full blown flower of the *Victoria Regia*, the 113th from the same plant. Beautiful cut seedling verbenas were shown by T. F. Croft.

The fruit table presented a tempting sight, and contained Black Hamburgh and White Frontignan Grapes; the Eliza, Druid Hill, Early York and George IV peaches; the Downton, Early Newington and Pitmaston nectarines; the Shanghai peach, believed the first shown in America; all from Mr. Cope's conservatory. Three bunches of White Sweetwater grapes, from A. J. Smith, gardener at Eden Hall. A rich display of nine dishes of cherries from Mrs. J. B. Smith, viz.: Royal Hative, Bigarreau Cœur, Burr's Seedling, Gobet, Belle Magnifique, Royale, Montmorency, Griotte and Mayduke. I. B. Baxter had the Gros Hative, Guigne Noir, Black Heart and Mayduke cherries; a dish of the Col. Wilder raspberries; gooseberries, thirty-two to the pound, and white and red currants. J. F. Knorr, four kinds of currants. J. M. Tage, a dish of the Moyamensing strawberry. Wm. Hobson, the Early Richmond and Black Tartarian cherries. Dr. Brinckle, raspberries, viz.: Mrs. Ingersoll, Mrs. Wilder, Gen. Patterson, Longworth, Emily and No. 35 H. and Dr. J. K. Mitchell seedling raspberries.

The two large vegetable tables were furnished by Mr. Cope's and Mr. Cornelius' gardeners, and did each of them credit.

James Ridings exhibited a case containing pestiferous insects, which he had collected this season. It attracted attention, and contained the borers of the maple tree, the linden, the apple and quince, the cherry and locust, the ash, the peach, the currant and gooseberry, and the squash.

Premiums awarded on this occasion were:—

By the Committee on Plants and Flowers, viz.:—Gloxinias—for the best six, to J. Bisset, gardener to J. Dundas; for the second best, to J. Bell. Fuchsias—for the best six, to A. Burnett, gardener to H. Pratt McKean. Plants in pots—for the best twelve, to Thos. Fairley; for the second best, to W. Grassie; for the third best, to J. Bell. Plant in a pot—for the best grown specimen *Gardenia Stanleyana*, to J. Pollock. Plants shown for the first time—a premium of \$5 to T. Fairley, for fine plants in bloom of *Medinilla magnifica* and *Tecoma jasminoides rosea*; a premium of \$3 to J. Bell, for *Delphinium Hendersonii*, six very beautiful gloxinias and two

achimenes; a premium of \$2 to J. Pollock, for *Clerodendron Bethuniæ* and *Medinilla Sieboldii*; a premium of \$1 to T. Meehan, for *Eranthemum semperflorens* and *Siphocampylus nitidus*. Bouquet designs—for the best, to T. Meehan; for the second best, to T. Meghran. Basket of cut flowers—for the best, to the same; for the second best, to R. Kilvington; for the best of indigenous flowers, to T. Meehan; for the best hand bouquet, to S. Bell. And a special premium of \$1 to T. Meehan, for a box of carnation flowers. The committee notice as deserving special attention, a very fine specimen in J. Bell's collection of delphinium, *Beauty of Charronne*, a hardy herbaceous plant, recommended as a very desirable bloom of great duration.

By the Committee on Fruits:—For the best Black Hamburg and White Muscat of Alexandria grapes, to T. Meehan; for the best cherries, *Burr's Seedling*, and for the second best, *Belle Magnifique*, to Francis Gouin. The attention of the committee was especially attracted by a small quantity of the fine strawberry, the *Moyamensing seedling*, by J. M. Tage; nor can they omit to notice the superior collection of peaches, apricots and nectarines, for which they award a special premium of \$3 to T. Meehan; and fine varieties of currants, for which they award a premium of \$2 to J. F. Knorr. They also notice choice varieties of seedling raspberries, from the gardens of Dr. Brinckle and Dr. Mitchell.

By the Committee on Vegetables:—For the best display of Vegetables, by an amateur gardener, to T. Meehan; for the second best, to T. Meghran.

The Fruit Committee, in presenting their usual monthly and interim Report, would remind the Society that, at the stated meeting of last month, specimens of two new grapes (one a seedling of the Black Hamburg, the other the *Musqué Verdel*.) were exhibited by the originator, J. Fisk Allen, of Salem, Massachusetts. Wishing to have an opportunity of carefully examining these two varieties, the committee only noticed them cursorily in their regular report for that evening, with a promise of submitting a more detailed pomological description of them in their June and interim report. The specimens having been winter forced, and being ripe in March, were kept too long after their maturity to be in their greatest perfection.

Allen's Seedling Black Hamburg.—The bunch exhibited was not very large, though it is probable there will be an improvement in this respect. Berry large, black, oval; seed grey; flesh solid, and possessing much of the character of the Black Hamburg; quality "very good."

Musqué Verdel.—This is a natural cross between the Grizzly Frontignan and the Verdelho, the wine grape of Madeira. Bunch large, shouldered, loose; berry rather small, about half an inch in diameter, round, pale red; seed light cinnamon color; flavor rich, saccharine, highly perfumed; quality "best;" said to be as early as the Black July, and the Pitmaston.

Mr. Allen deserves the thanks of pomologists for having originated two varieties of grapes of such excellence. And being of native origin, they may prove, for out-door culture, better suited to the requirements of our climate than their transatlantic parents.

From H. W. S. Cleveland, of Burlington, N. J., fine specimens of strawberries without a name. Fruit large, roundish, sometimes ovate, dark red; seed of the same color, set in superficial depressions; calyx reflexed; stamens persistent; flesh yellowish white, saccharine, high flavored; quality "best." The fruit and leaf clearly indicate the variety to be a Hautbois, probably the Lafayette. It is to be regretted that this luscious class of strawberries is so little cultivated.

From Mr. Stuart, beautiful specimens of strawberries, Hovey's Seedling, of last year's planting; some nearly four inches in circumference; quality "very good."

From Gerhard Schmitz, of Philadelphia, fine specimens of two of his seedling strawberries:

1. *The Pennsylvania*—This variety is a seedling of the Moyamensing, and was exhibited by Mr. Schmitz last season for the first time. Fruit large, broadly conical, dark crimson; seed crimson, and when shaded, yellow, set in depressions not very deep, with roundish intervals; flesh red; flavor fine; quality "best;" sexual character pistillate; leaf large, deep green, serratures crenate. The committee award a premium of five dollars to this variety, as the best new American seedling strawberry of superior quality, after two years' trial.

2. *Schmitz's No. 3*.—A seedling of the Washington, exhibited now for the first time. Fruit large, roundish ovate, sometimes inclining to conical, light crimson; seed crimson, often yellow, set in rather deep indentations, with intervals somewhat ridged; flesh pale red; flavor pleasant; quality "very good;" sexual character pistillate; leaf large, light green.

From Caleb Cope, specimens of four varieties of strawberries:

1. *McAvoy's Superior*.—This variety originated with Mr. McAvoy, of Cincinnati, and was formerly known as his No. 12. In May, 1851, it received a premium of one hundred dollars from the Cincinnati Horticultural Society. Mr. Cope's specimens were of great size and beauty, some of them measuring *six and a half inches in circumference*. Fruit very large, roundish ovate, occasionally slightly necked, deep brilliant crimson; seed crimson, sometimes yellow, set in indentations not deep, except in the largest specimens, when the intervals are also somewhat ridged; flesh red; flavor exquisitely fine; quality "best;" sexual character pistillate.

2. *McAvoy's No. 1*.—Large, roundish, deep scarlet; light crimson seed; indentations rather deep, intervals not ridged; flesh whitish, partly stained with red; flavor agreeable; quality "good," perhaps "very good;" sexual character pistillate. An abundant bearer.

3. *McAvoy's Extra Red*.—Large, roundish, scarlet; seed red, sometimes yellowish; indentations tolerably deep, intervals somewhat rounded; flesh yellowish, slightly stained; sub-acid flavor; quality only "good;" pistillate; extraordinarily productive.

4. *Longworth's Profuse*.—This fine variety originated with Mr. Schneicke, of Cincinnati, and was formerly known as Schneicke's Hermaphrodite. Very large, roundish ovate, brilliant crimson; seed of the same color, sometimes yellowish, set in rather deep indentations with rounded intervals;

flesh red; flavor fine; quality "very good." A variety of great excellence, perfect in its sexual organization, and remarkably productive, a rare circumstance with staminate varieties of large size.

From Robert Buist, fine specimens of two varieties of strawberries, McAvoy's Superior and McAvoy's No. 1, described above.

From Henry A. Dreer, a dish of the Moyamensing strawberry. This fine variety originated with Gerhard Schmitz, of this city, and took the premium offered by the Pennsylvania Horticultural Society for the best seedling strawberry exhibited in 1848. Fruit rather large, roundish conical, deep crimson; seed crimson, set in rather deep depressions, with rounded intervals; flesh red; flavor very fine; quality "best;" sexual character, pistillate; leaf large, with crenate serratures.

From Dr. E. W. Carpenter, Lancaster, the Triumph of Cumberland cherry, a native of Cumberland County, Pennsylvania. Specimens fine. Large, obtuse heart-shaped, sometimes roundish, compressed at the sides; deep crimson, almost purple when fully ripe; suture indistinct; stem rather long, slender, inserted in a broad, open cavity; apex slightly depressed; stone roundish oval, compressed; flesh rather solid, red, slightly adherent to the stone; flavor fine; quality "best;" period of maturity about the middle of June.

The Treasurer submitted his semi-annual statement, which was read and referred. Charles Kepler, Reading, Pa., was elected an honorary and corresponding member, and four gentlemen, contributing members. Adjourned. THO. P. JAMES, Recording Secretary.

ART. IV. *Massachusetts Horticultural Society.*

June 4th.—An adjourned meeting of the Society was held to-day,—the President in the chair.

The President presented pamphlets, which were committed to the Librarian.

W. Wetherill and W. R. Saunders, Boston, and Stephen Williams, Roxbury, were elected members.

Adjourned two weeks, to June 18th.

Exhibited.—**FLOWERS:** From A. Bowditch, a plant of *Mahernia odorata*, fancifully trained, very neat; also, a fine display of cut flowers. From Miss Russell, a basket of flowers and two bouquets. From J. Nugent, four fine bouquets, cut flowers, pansies, &c. From T. Page, two fine bouquets. From Miss Mary A. Kenrick, a basket of flowers. From Mrs. Wm. Ashby, Newburyport, a fine collection of aquilegias; also, pansies. From Messrs. Winship, a grand display of Azaleas and other fine shrubs and herbaceous plants. From J. Breck & Son, a variety of iris, including fine specimens of *iris susiana*; also, fine anemones. From E. Chamberlain, pæonies, iris, and other cut flowers. From Wm. E. Carter, a fine assortment of cut flowers.

FRUIT.—From M. H. Simpson, twelve dishes grapes; one dish peaches in variety. From J. F. Allen, grapes—Deacon's Superb; cherries—May Duke, Elton, and Black Tartarian; peaches, nectarines, and figs, all fine. From W. C. Strong, four dishes grapes.

June 11th.—**Exhibited.**—**FLOWERS:** From M. P. Wilder, a great variety and quantity of Chinese pæonies, also superb rhododendrons, *Weigelia rosea*, &c. From E. Chamberlain, pæonies, iris, *Dictamnus fraxinella*, &c. From Messrs. Winship, azaleas, rhododendrons, with a great variety of other flowering shrubs and herbaceous plants. From J. Nugent, three fine bouquets, and a fine collection of cut flowers. From J. Breck & Son, a great variety of cut flowers.

From Hovey & Co., 30 rhododendrons, (10 varieties,) 12 var. of azaleas, 2 var. *Kalmia latifolia*, 12 var. fancy geraniums, 12 var. pæonies, 6 pots fancy geraniums, 1 *Biguonia picta*, 6 new pelargoniums, viz.: Prince Arthur, Ajax, Mount Hecla, Salamander, May Queen, Topping's elegans. Cut flowers and bouquets, from J. Dunklee, T. Page, Miss Russell, Miss M. A. Kenrick, Mrs. E. A. Story, A. Bowditch, and W. E. Carter.

AWARD OF PREMIUMS.

HERBACEOUS PÆONIES. For the best 10 var., to M. P. Wilder, \$5.

For the second best, to A. Bowditch, \$4.

FRUIT: From I. Fay, six boxes Jenny Lind strawberries, fine. The Committee will speak more fully of this strawberry, hereafter. From I. H. Jones, strawberries. From J. Breck & Son, three dishes grapes. From W. Mason, extra large figs. From J. Nugent, three dishes grapes. From Hovey & Co., cherries—May Bigarreau, very early, and a profuse bearer. From W. R. Austin, strawberries—Boston Pine and Early Virginia. From J. B. Moore, strawberries. From W. C. Strong, six dishes grapes. From J. Richardson, Richardson's early strawberries.

June 18.—An adjourned meeting of the Society was held to-day,—the President in the chair.

The President was directed to reply to a communication from M. Vattemare.

Dr. Geo. Monarchim, Isle of Candia, was elected a corresponding member.

Meeting dissolved.

Exhibited.—**FLOWERS:** From A. Bowditch, cut flowers, including fine clusters of *Kalmia latifolia*; roses in great profusion; in a branch of white perpetual moss there was a curious freak of nature; a part of the side branches produced flowers of very different variety, resembling the blush damask. The Moss Rose was stated to be on its own roots, and there was no appearance of having been budded. From J. A. Kenrick, pæonies, a fine specimen of *Magnolia macrophylla*, *Magnolia glauca*, &c. From E. Chamberlain, a great variety of roses and cut flowers. From P. Barnes, roses, delphiniums, phloxes, campanulas, *Lychnis flosculi alba*, *Swansonia*, &c. From J. Breck & Son, roses in great variety—pæonies, campanulas, delphiniums, iris, &c. From Winship & Co., a great variety of cut flowers, including roses, pæonies, &c., &c. From M. P. Wilder, a

grand display of Moss, Perpetual, and other hardy roses; peonies, &c. Cut flowers and bouquets, from J. Dunclee, J. Nugent, B. V. French, Miss Russell, Miss M. A. Kenrick, S. Walker, and Mrs. E. A. Story.

From Hovey & Co., 150 varieties of hardy roses; 20 var. Moss, and 20 var. Perpetual; Phlox Snowflake, *Pæonia festiva*, and fine clusters of *Kalmia latifolia*; also 12 varieties of laced pinks.

From W. E. Carter, a variety of cut flowers.

From J. F. Allen, a leaf of the celebrated *Victoria Regia*, four feet in diameter, from his plant, now growing in Salem. This gigantic and superb lily will soon be in flower.

PREMIUMS AWARDED.

ROSES.—*Hardy.*—Class I.—For the best 30 varieties of roses, to M. P. Wilder, \$8.

For the second best, to Messrs. Hovey, \$6.

The flowers in each lot were superb, and of equal merit, but the foliage of the first lot was superior.

Class II.—For the best 12 var., to E. Chamberlain, \$5.

For the second best, to A. Bowditch, \$4.

For the third best, to T. Page, \$2.

Class III.—*Perpetuals.*—For the best 10 var., to Hovey & Co., \$5.

For the second best, to M. P. Wilder, \$4.

For the third best, to J. Nugent, \$3.

LACED PINKS.—For the best 6 varieties, to Messrs. Hovey, \$4.

FRUIT: From W. C. Strong, 6 dishes grapes, in variety. One bunch Black Hamburgh weighed 2½ lbs. From M. H. Simpson, a dish of peaches for a name. From J. B. Moore, 2 baskets Hovey's Seedling, extra fine. From I. H. Jones, Jr., box strawberries. From J. Breck & Son, 4 dishes grapes. From J. Nugent, 4 dishes grapes. From J. Beegar, from garden of T. H. Perkins, Hovey's Seedling strawberries, and 'Netted Green Flesh melons. From J. Richardson, Hovey's Seedling, Boston Pine, Richardson's Early and Jenney's Seedling. From I. Fay, Jenny Lind and Fay's Seedling strawberries—all fine. From H. Vandine, cherries—May Duke, and May Bigarreau. From C. E. Grant, 2 boxes strawberries.

From Hovey & Co., strawberries—McAvoy's Superior; this variety did not sustain the reputation which had preceded it. The Committee on Gardens will make a seasonable report on the relative merits of the various varieties of strawberries in general cultivation, having availed themselves of a visit to the grounds of the Hon. B. V. French, where are growing some 25 varieties, planted in hills and beds, with the view to test the bearing qualities, &c., &c. From H. Bradlee, White Alpine strawberries. From Thos. Rice, Hovey's Seedling strawberries. From S. Walker, Walker's Seedling strawberries, extra fine flavored. From W. R. Austin, 2 boxes Hovey's Seedling strawberries.

June 25th.—Exhibited.—**FLOWERS:** From Messrs. Hovey, 10 varieties of Prairie roses, viz.: Mrs. Hovey, Queen, Baltimore Belle, Superba, Eva Corinne, Anne Maria, Perpetual Pink, Triumphant, Pride of Washington,

and Pallida. From C. Copeland, dahlias, the first of the season, seedling verbenas and cut flowers. From B. Gibbs, fine double Sweet Williams. Cut flowers, &c., were contributed by M. P. Wilder, Miss M. A. Kenrick, Miss Russell, J. Breck & Son, P. Barnes, E. Chamberlain, J. A. Kenrick, Jas. Nugent, A. Bowditch, Col. B. Loring, H. Vandine, H. Bradlee, Winship & Co., and others.

PREMIUMS AWARDED.

PRAIRIE ROSES.—For the best display, to Messrs. Hovey, \$5.

For the second best, to J. Nugent, \$4.

For the third best, to Winship & Co., \$3.

FRUIT: From Hovey & Co., strawberries—McAvoy's No. 1, McAvoy's Superior, Schneikes Pistillate (disagreeable flavor), Hovey's Seedling, fine. From W. P. Jenney, his Seedling strawberries, fine. From M. H. Simpson, strawberries—Hovey's Seedling, and a Seedling raised by Dr. Durfee (not named), of a high sparkling flavor. The berries were very large, and though looking as though they would outweigh Hovey's Seedling in the baskets at their side, when tried in the balance they were "found wanting." From I. Fay, 13 baskets Fay's Seedling—an extra fine exhibition of this variety. From W. C. Strong, 6 dishes grapes. From J. Nugent, cherries—May Duke, Belle de Choisy, and White Bigarreau. From H. Vandine, two boxes Elton cherries. From O. Johnson, peaches—Coolidge's Favorite. From J. F. Allen, grapes, peaches, and figs, in variety. From A. Bowditch, Coe's Transparent cherries—fine. From J. B. Moore, strawberries—Hovey's and Jenny's Seedlings; apples—Roxbury Russet, Baldwin, and Late Green Sweet.

HORTICULTURAL OPERATIONS

FOR JULY.

FRUIT DEPARTMENT.

July is a busy month: fruit trees, grape vines, &c., will now require to be summer pruned, and if the gardener has much under his charge, he will find work enough to do. Mulching and watering will also require considerable time; and between keeping everything in order, and performing such operations as cannot be omitted, but little leisure time will fall to the lot of an ambitious gardener or enthusiastic amateur.

GRAPE VINES in the earliest houses, will now be fully ripe; air the house early, keep it cool and dry, and the berries will hang for a long time in the best order. As soon as they are cut, throw open the house night and day, in order to check the growth and ripen off the wood early; on this everything depends. Vines in the greenhouse or grapery, will begin to color, and will require attention: do not overload the vines—an error far too com-

mon—it is better to have 20 fine clusters than 40 small ones. Keep the house well dampened until the dark grapes are nearly colored, when it should be mostly withheld. Prune off the laterals one eye beyond the last stopping, and tie in the spurs to prevent their being broken off. Vines in coldhouses will need considerable attention now, as it is just the season when mildew is most likely to attack them. Give moderate quantities of air, avoiding cold draughts, and damp over the house two or three times daily: finish thinning and shouldering as soon as possible; stop all laterals, and keep all shoots firmly tied to the trellis.

PEACH TREES in pots would be greatly benefited now, just as they are swelling, by a good mulching of fresh cow manure. Set them in an open sunny place, as little exposed to the wind as possible.

FIG TREES in pots should now be liberally watered—occasionally with liquid manure.

STRAWBERRIES will now require to be overlooked; new beds should be carefully weeded out, and all the new runners laid in, so as to fill up the beds or rows in whichever way it is intended to grow them. Old beds should be renovated by digging in alternate rows, to give place for fresh runners. Dig in a good quantity of old stable manure.

PLUM TREES may be budded the last of the month.

SUMMER PRUNING will now occupy a good deal of time: this kind of work cannot be done hastily; all *side* shoots should be pinched or cut off to the second eye, and the main shoots just topped to check the growth.

MULCHING should be attended to, where fine large specimens of fruit are desired; and an occasional watering should be given, unless the situation is very wet. Nothing benefits the pear, especially, more than this.

FLOWER DEPARTMENT.

The bedding out all completed, and the plants all arranged in their summer quarters, attention should now be given to the decoration of the greenhouse and conservatory. They may both be made almost as interesting as in winter. Fuchsias, Japan lilies, Gloxinias, Achimenes, Gardenias, &c., in their endless varieties, are enough to stock a house. Achimenes in particular, should have a prominent place; and if the plants are well grown, they will make a superb appearance till the house is wanted for the winter. A pretty way to grow them, is to have them in good pans, or if pans are not to be had, in large pots, one-half filled up with potsherds and lumpy-peat; stake out the shoots carefully, and they may be made to reach a diameter of two or more feet.

All winter flowering stock should have careful attention; such as require it should be repotted; others top dressed, pruned, &c. It should be remembered that all winter flowering plants must be well established. Starkias, Eupatoriums, Heliotropes, and similar things, must be large and fine plants to give a good bloom.

Secure now a good lot of soil for fall and spring potting, unless there is plenty on hand. Old hotbed manure, cow manure, loam, peat, sand, &c., should be got in, now that there is a little leisure.

CAMELLIAS in the open air should be well watered and syringed every other day. The whole collection should be carefully looked over the last of the month, and such as need it, should be repotted. Inarchings put on in February and March, may be cut off now. Cuttings may be put in as soon as the wood is fully ripe.

AZALEAS will now be making their new growth, and should therefore be placed in a half-shady situation and plunged in tan or coal ashes. Keep them well syringed.

PELARGONIUMS should be headed in this month; allow the plants to get rather dry before doing this, and do not water them for some days afterwards, placing them in a half-shady place until the wounds are somewhat healed.

VERBENAS for early winter flowers, should be propagated now from cuttings, or the young plants be newly potted for that purpose.

HEATHS and **EPACRISES** should be carefully plunged in ashes, tan, or soil, and see that they are all judiciously watered.

MIGNONETTE, **ALYSSUM**, &c., for winter flowering, should be sown this month.

CHINESE PRIMROSES, both double and single, should be propagated now from cuttings. Keep the old plants in a cool frame.

CHRYSANTHEMUMS should have another shift now, and have the main shoot nipped off to form good bushy heads. Water occasionally with liquid manure.

GARDENIAS should be shifted now into larger pots.

FUCHSIAS intended for fine large specimens, should now be shifted into 12-inch pots, in rich, light soil.

TORENIAS may now have a shift into larger pots.

PLANTS of all kinds should be looked over now, potting such as require it, and top dressing others. See that they are all well watered and syringed.

FLOWER GARDEN AND SHAUBERRY.

The flowering season of most of the shrubs being over, they should now be pruned into shape, the ground cleared and raked, and all put in fine order. Walks should be hoed and rolled; grass edgings must be kept neat and the borders perfectly clean: tie up all tall growing annuals or perennials, and peg down all the small ones, such as *phlox Drummondii*, *verbenas*, *lantanas*, &c.

BIENNIALS and **PERENNIALS** may now be planted for next year's blooming.

TULIPS and other bulbs should now be taken up.

PICOTEES and **CARNATIONS** should be neatly tied up. Pinks should be propagated by pipings.

PANSY seed may be sown the last of the month, for spring blooming.

DAHLIAS should be staked immediately, and if they are mulched and watered, they will be greatly benefited.

ROSES will require attention. Layer the hardy kinds to increase the stock; and prune in all perpetuals to a good bud, if a fine full bloom is expected; manure and water the latter. Stocks may be budded now.

THE MAGAZINE OF HORTICULTURE.

AUGUST, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *The Scotch or Wych Elm.*

IN the cultivation of all kinds of trees and plants, whether ornamental or useful, it is desirable to select such as will thrive with the least care. Especially is this a great desideratum with those who have but little time to bestow upon their gardens, or who are indebted to their individual labor to keep them in fine order. A tree, therefore, or a plant, which needs continued attention, is consequently less valuable for general cultivation, even though it may individually be more ornamental.

Take a hasty glance at some of our ornamental trees and shrubs, and our fruit trees, and see how much difference there is in this respect. The locust is a very pretty as well as a valuable tree, but it is so subject to the borer, that it is comparatively worthless; the same may be said of the English ash. Our American elm stands almost at the head of all beautiful trees, but its liability to be attacked by the canker-worm greatly detracts from its merits. The canker-worm also attacks the lime and silver maple, though not so badly as the elm. Among fruit trees, the apple, the plum and the peach require far more care than the pear and cherry; the former are attacked by borers, canker-worms, aphids, black knots, curculios, yellows, and nobody knows how many more insects or diseases. Among shrubs, the rose is devoured by the slug, the thrips, and the rose bug; and the snowball is

the prey of a horde of lice which destroy the beauty of the foliage.

In the hands of an industrious gardener or energetic amateur these trees, it is true, can be kept in fine order, and in a complete garden or grounds none of them can well be dispensed with; but where gardens are small, the labor limited, and neatness and thrifty growth an object, nothing but constant watching, care, attention and hard work will render them anything but unsightly things.

These remarks are just now suggested by the late attack of a small worm, which has devastated many gardens, and ravaged without much regard to kind, nearly every tree and shrub, except evergreens, in some localities. Even the oak, heretofore almost free from the insects so injurious to other trees, has been more severely attacked than many others. Whether this insect is to remain a perpetual comer with the return of each season remains to be seen; but if it is, it will be a destructive and formidable one to destroy.

In our grounds we have not felt the effects of it, so badly as many of our neighbors, the oaks being the only trees which were much eaten; the canker-worms had just finished their labors and perhaps had so thoroughly eaten up some kinds, that the natural instinct of the new worm led it to cut us altogether and locate elsewhere. We are not sorry, and hope we may never feel more of its effects than we have already experienced; but if it is to come again we are glad to know there is one tree which is proof both against it and the vile canker-worm; this is the Scotch elm. We have a group of oaks, hornbeams, and Scotch elms, standing near a large Baldwin apple tree; every year the hornbeams and apple are badly eaten by the canker, and would be, but for constant care, quite devoured by them; the Scotch elm has never had a leaf touched, and now looks as beautiful and fresh as if no insect ever lived; perhaps, as it has obtained the name of *Wych* elm, from its resemblance to the Wych hazel, it is equally as great a preservative against insects as the hazel is against witches. It is certainly remarkable to see all the other elms, of which we have at least ten varieties or species, attacked and the Scotch perfectly exempt. The beautiful

foliage of a cut-leaved oak was greatly defaced by the new worm, but the elm by its side had not a leaf injured.

We have noticed its peculiar exemption from the ravages of the canker-worm for three or four years, and have in consequence recommended it to many friends as one of the most desirable as well as beautiful *street* trees; and now that it has escaped the attacks of the new enemy, we deem it of sufficient importance to recommend, to all planters of fine trees, the introduction of the Scotch elm in company with, if not in the place of, our own native species. It is very little known; indeed, we recollect of seeing but few trees of it of any size in the neighborhood of Boston. It is, however, aside from the value which we attach to it, a remarkable fine ornamental tree. We have already spoken highly in its praise in our descriptive list of ornamental trees in a previous volume, (XVII, p. 153.) Gilpin and Sir Thomas Dick Lauder speak highly of it as an ornamental tree, and as a timber tree some of the best English writers state that "it is prized next to the wood of the oak."

Gilpin, a thorough enthusiast in his love of trees, says of the Wych elm, that it "is, perhaps, generally more picturesque than the common elm, (*Ulmus campestris*), as it hangs more negligently, though at the same time, with this negligence it loses in a good degree that happy surface for catching masses of light which we admire in the common elm. We observe also when we see this tree in company with the common elm that its bark is somewhat of a lighter hue." (*Gilpin's Forest Scenery*.) On this opinion Sir Thomas Dick Lauder observes, "We are disposed to think Mr. Gilpin hardly does justice to this elm. For our part we consider the Wych or Scottish elm as one of the finest trees in our British Sylva. The trunk is so bold and picturesque in form, covered, as it frequently is, with large excrescences; the limbs and branches are so free and graceful in their growth; and the foliage is so rich, without being leafy or clumpy as a whole; and the head is, generally, so finely massed, and yet so well broken, as to render it one of the noblest of park trees, and when it grows wildly amid the rocky scenery of

its native Scotland, there is no tree which assumes so great or so pleasing a variety of character."

We need not say more to satisfy all planters that it is a most beautiful tree. That it resists the ravages of insects which despoil our native and other elms of their entire beauty we have given the experience of many years, and we can fully recommend it to all who are planting trees as one of the best which can be found.

ART. II. *Trees ;—their General Character and Advantages.*
By WILSON FLAGG.

EVERY careful observer of nature must have remarked that there is an endless variety in the forms and foliage of trees, and these differences and their expression have, from the earliest ages, been a favorite study for the painter and the poet. The Psalmist compares the godly man to "a tree that is planted by rivers of water, whose leaf shall not wither," seeing in the stateliness and beauty of such a tree, an emblem of the nobler virtues of the human heart. Trees are distinguished from one another by their grandeur or by their elegance ; by their primness or by their grace ; by the stiffness of their branches and foliage, or by their waving and tremulous motions. Some stand forth as if in defiance of the wind and storm ; others, with long drooping branches, find their security in bending to the gale, like the slender grasses at their roots.

Although a perfect tree, of any species, is regular and symmetrical in its outlines, there are but a few in which this symmetry prevails in the arrangement of their branches. The deciduous trees generally send out their branches, at irregular distances, and at different angles. In the evergreens of the fir tribe the branches are given out in whorls, leaving spaces between each whorl either naked or covered only with a few abortive and inconspicuous shoots. In every perfect tree of this tribe there is a single trunk that grows undivided

to the very summit, the branches extending horizontally, or nearly so, and always at the same angle in the same whorl with the perpendicular trunk, and gradually decreasing in length from the root to the summit of the tree. This manner of growth causes it to assume a pyramidal form which is more remarkable than in any other species. These trees, when perfect, are clothed with branches down almost to their roots.

The deciduous trees divide their trunk into several branches, after attaining a certain height, and these are seldom given out horizontally or at regular distances. Hence their regularity is general, not formal ; and is more apparent in their outlines than in the arrangements of their branches. In trees of the coniferous tribe we look for symmetry and geometrical beauty ; in the deciduous trees for elegance and grace, without formality. Hence the latter may lose much of their general proportions, and still be pleasing objects to the sight ; but any imperfection in the shape of the former, as in a geometrical figure, is fatal to their beauty, and renders them worthless as ornaments of highly cultivated scenery. It is on this account that the coniferous evergreens are, for the most part, in better harmony with rude and mountainous situations, than with richly decorated landscapes.

The value of trees as beautiful objects would be greatly diminished, if they never changed their appearance. In this habit consists the superiority of the deciduous trees, as compared with the evergreens. The latter are more or less wearisome to the sight, by wearing forever the same dark-green sombre foliage. The evergreens, however, are the charm and the glory of winter ; and the landscape that is destitute of them, at this season, is tame and cheerless, and wanting in what is most beautiful to the sight and suggestive of out-of-door comfort and protection from the cold. Not only by their verdure do they relieve the desolate aspect of winter, but by their contrast they make the splendor of the autumnal tints more remarkable in the decline of the year. Our northern evergreens, consisting chiefly of the coniferous species, bear no conspicuous flowers—a deficiency that adds still greater monotony to their general appearance.

Forming a pleasing contrast with the evergreens, the deciduous trees, varying with the seasons of the year, pass through a succession of changes, by which they are constantly assuming new attractions. There is no tree that affords a better example of these changes than the common red maple, which, in the course of the year, exhibits five different aspects. In early May, when it is in flower, it is filled throughout with bright crimson blossoms, that render it a magnificent object when beheld at a little distance. As the blossoms fade, the tender leaves are put forth, in plaited folds, of a light green, shaded with purple. The third change exhibits the tree in summer arrayed in one uniform canopy of darker green. In September the whole foliage assumes a bright crimson hue, which it retains until the fall of the leaf. We can hardly conceive of any greater beauty of tints than that presented by the different species of maples during September and October. Other trees are clad in comparatively dull and inconspicuous hues; and it is the maple that yields the principal charm to American forest scenery in autumn. The last change assumed by the maple reduces it to the nakedness of winter, when, by the gracefulness of its proportions and the neatness and elegance of its branches, it attracts the attention of every beholder.

Not only in the forms of trees but in their motions, when swayed by the wind, do we notice a great dissimilarity. The branches of certain kinds of trees are so stiff and unyielding, that they scarcely bend perceptibly to the breeze. This stubborn quality is particularly remarkable in the firs and spruces, in which the leaves are entirely motionless, and the branches immovable except by a strong current of wind. As the beauty of a tree consists in its motions no less than its form and proportions, it is rendered worthless for ornamental purposes in proportion as it is wanting in this graceful quality that assimilates it to a living creature.

The leaves of almost all trees are more or less tremulous; but in this respect there is a great difference between them. Some species, when exposed to the passing breeze, exhibit merely a waving of the branches, which yields a singularly

graceful appearance to the common American elm and the weeping willow. Others exhibit less waving of the branches; but when the wind passes through them their foliage is put into rapid motion, making an agreeable rustling sound as if the tree was full of life. This trembling of the leaves is proverbial in the aspen, and in many other poplars; and it distinguishes the pear tree from the apple tree, and the common white birch from its kindred species. The leaves of most trees, whose foliage is remarkably tremulous, are heart-shaped and smooth on their upper surface, like those of some of the evergreens.

Besides these natural dissimilarities in the forms and habits of trees, there are others which may be termed accidental. In a forest the trees are so closely set as to lose much of their individual peculiarity, growing up to a great height and prevented from spreading out their lower branches by the close vicinity of other trees. Hence writers have made this distinction between a forest and a grove. In the latter the trees are sufficiently far apart to admit of their full development; in a forest they are so thickly planted as to run up like great pillars, their branches making an even canopy of foliage above our heads. A grove, therefore, approaches more nearly to a state of cultivation than a forest, in which we seldom find a perfect tree.

The public, at the present day, is very generally convinced of the importance of planting trees by the roadsides and around their enclosures. Not only do they afford us shade and shelter, but they tend to equalize the temperature of the atmosphere at all seasons. It is well known to travellers that the forests are cooler in summer and warmer in winter than the open plains, and that the equability of the climate would be improved in proportion as the whole continent should be covered with trees. And how many barren roadsides, where one is scorched with the fervid heat of the summer at one season and chilled with the bleak wintry winds at another, might be bordered with millions of beautiful trees, to yield comfort and protection both to the traveller and the dweller in their vicinity.

The consequence of depriving a country of its wood, is the drying of the soil in about the same proportion ; and were a country to be completely deprived of its timber, in the interior of a large continent, it would be converted into a dry desert. Trees not only check evaporation from the soil, but they attract the moisture of the atmosphere and concentrate it in their own neighborhood. They are likewise, when planted at a proper distance from our dwellings, a protection against lightning. Trees are good conductors, and where they are very numerous they prevent the accumulation of electricity in the atmosphere, by silently conducting down the fluid from the impending clouds. It is also well known that the foliage of trees produces a constant purifying influence upon the vital element that surrounds us, and aids other natural agents in reproducing what living creatures have consumed. But, setting all these considerations aside, the beauty of trees would alone be a sufficient inducement to cultivate them ; and, more than all, they serve to attract the singing birds around our dwellings, through whose sweet voices nature is always communicating to us some agreeable sentiment or cheerful emotion.

Among the advantages of trees it would be idle to omit to mention their fragrance. No man of imagination would despise a perfume. It is a part of the universal language of nature, and aids us in interpreting many of her laws. If we conversed by odors, instead of sounds, the sense of smelling would be ranked with the intellectual senses. And how intimately associated is the terebinthine odor of pines with the pleasant languor of summer noon-day, with the gathering of wild fruits in the pastures, with the pensive notes of the solitary thrushes, and with the few beautiful and singular flowers that dwell like nuns in their cloistered solitudes.

But the most evident cause of the sensation of beauty with which we contemplate a grove of trees, is the idea of the protection they afford us during the languid heat of summer. Connected with this are the sounds of winds through their foliage, the hum of insects among their blossoms, and the warbling of birds among their branches. All these come

vividly to the fancy while looking upon their beautiful forms, the variety of colors unfolded to the sight, during the development of their foliage, from the first tender plaited leaves of April, with their hues of yellow and purple, to the dark green hues of summer, and the gorgeous splendor of autumn that precedes their final decay.

In woods we delight to ramble in early youth, charmed with their pleasant seclusion, with the variety of flowers and plants in their undergrowth, the soft carpet of moss that covers their knolls, and the many peculiar sounds that to the ear of childhood are striking and romantic. In later years the wood becomes an enchanted spot, where we are, as it were, carried back to the days of our youth by the general influence that is breathing around us. Here is the theatre of the pleasures of many a holiday; the trees under whose boughs we have watched the gambols of the squirrels and the flitting of birds, or listened to the murmurs of their lofty branches when swayed by the winds.

It needs, therefore, no elaborate argument to prove that on the character of our trees and woods depends a great portion of the happiness of the people. In them resides, in a high degree, that quality which lends a moral influence to landscape. To them are we indebted for what is most beautiful in prospect, and most agreeable in a rural walk. Trees are like so many old friends, each possessing a different character, and speaking to us a different language of pleasant and sad remembrances. How does the weeping willow awaken the tender melancholy that attends us in a country churchyard, and as it waves its branches to the wind we seem to listen to the sighs of some invisible watchers over the silent slumbers. The gracefulness of the poplar, with its green tremulous leaves, the grandeur of the wide-spreading oak, and the majestic beauty of the elm, are each calculated to inspire the mind with serene, lively, tender or sublime emotions, and are so many aids to us in our efforts to recall the pleasant memories of the past, or in cherishing those feelings that elevate the mind with aspirations for something better than the plodding business of life.

As a supplement to these general remarks on trees, it may be well to make a few suggestions concerning a very important point in practice. In these days men are seldom guilty of the folly of removing trees, without, as far as practicable, saving the entire root. But they commit another error which involves consequences quite as important. I allude to the practice of digging up trees for transplantation indiscriminately from the forest. A perfect tree can seldom be found in a wood, and the only way of insuring the acquisition of good trees, native as well as foreign, is to procure them from a nursery. Nursery trees, if proper care has been taken of them, are more perfect, in their form and proportions, than those which have grown up spontaneously among the crowded trees and undergrowth of the woods. These remarks are particularly applicable to the coniferous evergreens, which are worthless if they have lost their lower branches. The greater number that have attained the height of six feet in the woods have met with this loss, which can never be remedied.

There is the same difference between the trees from the nursery and the trees from the wood, that may be observed between the stout cabbage plants that are grown separately, in a good soil and properly weeded, and others that have become slender and elongated by growing thickly and crowded among tall weeds. Neither the elongated cabbage plants nor the slender saplings from the forest can form good heads. The nursery trees have another advantage over the wild ones, in having been accustomed from their first appearance above the soil to what we may call artificial habits. They submit, therefore, more kindly to the treatment they are to receive. The wild-growers are obliged to be "broken in," or naturalized, and many of them must perish in the operation. It is a sort of penny wisdom that would advise one to dig up poor puny saplings from the woods, because they can be had for nothing. The greater amount of labor required in procuring them from the woods, with good roots, will make the expense in the end equal if not greater than that of purchasing them from a nursery, without taking into account the greater comparative number of the former that will perish.

Beverly, July 10th, 1853.

ART. III. *Pomological Gossip.*

THE CHERRY SEASON.—The crop of cherries the present year has been unusually abundant and good. The weather has been dry, and they ripened off without scarcely any of the cracking and rotting so common in most seasons. Some new varieties have also fruited more profusely than heretofore, and afforded a better opportunity to test their merits. The following are some we have seen in fine condition :—

Duchess de Pallua.—This is a new variety, introduced by Hon. M. P. Wilder. It is a black cherry, very dark, of medium size, and rather early, ripening about the middle of June. The flavor is brisk, rich, and very sweet, and it promises to be a valuable variety. It is one of the most abundant bearers, the branches being loaded with the fruit. We shall give a drawing and description of it in a future number.

Coe's Transparent has proved to be a most excellent cherry, of good size, with a beautiful transparent skin, and remarkably tender, like the Downer.

Bigarreau d'Esperin.—This fine cherry, which we first fruited and described in our last volume, (XVIII, p. 356,) has borne abundantly this year, and proves to be even a finer cherry than we estimated it. It appears to be between the Dukes and the Heart cherries, having that brisk vinous flavor of the former, without their acidity, being just acid enough to be rich and refreshing. The flesh is exceedingly tender. It produces abundantly, and hangs well on the tree.

Hovey.—This is the name under which the new seedling we have already noticed (XVII, p. 363,) is known. It has now borne for the *fourth* year, and continues to sustain the high character which has been given to it by the Fruit Committee of the Massachusetts Horticultural Society. We shall figure and describe it in our next.

CHERRY FESTIVAL IN CLEVELAND, OHIO.—A Cherry Festival was held in Cleveland on the 24th of June, at the invitation of Mr. F. R. Elliot, to test Dr. Kirtland's Seedling Cherries. We had an invitation to attend, and regret that we were un-

able to accept. We are pleased to learn, however, that the festival was attended by quite a large number of amateurs and nurserymen of the western part of New York and Ohio. The exhibition was one of the finest of this fruit, probably, ever made in the county. About forty distinct varieties were exhibited. The judges examined the cherries under Nos., without any designation as to kinds. The award of merit was given unanimously in favor of what proved to be the Doctor's Seedlings, which we described in our April number, (p. 166.) Among the best selected were "Delicate" and "Mammoth." We expect to have a full report of the meeting, which we shall give to our readers. Dr. Kirtland has been enthusiastic in his labors to improve the cherry, and we are glad to know they have been crowned with success.

ART. IV. *The Cultivation of the Carnation and Picotee.*

OUR gardens cannot boast of a more beautiful flower than the carnation in its present highly improved and cultivated state. Its brilliant colors and delightful odor never fail to attract the attention of all who have the least taste for flowers. Hogg, an old English writer on the carnation, and one of the most successful cultivators, in his *Treatise* on their growth, remarks, "Of all the flowers of the garden, whether they charm the eye by their beauty, or regale the sense of smelling by their fragrance, the carnation may be justly said to hold the first rank. The stateliness of its growth, the brilliancy and delicacy of its colors, and the sweetness of its perfume never fail to attract our regard and admiration."

The carnation has been brought to a high state of cultivation by English florists. France has done everything for the rose; but to England belongs the credit of bringing this beautiful flower to the highest perfection. It is truly the amateur's flower. Professional cultivators and nurserymen have never given it that care which is necessary to ensure successful growth. The same author we have just quoted,

truly observes, "Professional gardeners are not very good cultivators of carnations. It is not every gardener that knows how to grow a carnation, however lightly he may treat it, and however confident he may feel of doing it. If he neglects to prepare proper composts, his plants will not thrive; if he does not pay requisite attention to them before and during their flowering, the bloom will not be worth looking at; if he does not understand how to propagate them, they will all very soon perish. Gardeners unaccustomed to flowerers, are, in general, bad propagators. Few of them have any right notion of piping; and though nothing is more simple, they never set about it as if they wished to succeed; they are likewise great bunglers in layering; there is not one in ten whose assistance I would claim upon the most pressing occasion, and leave the operation to them, uncontrolled and unlooked after; whereas I could trust to any amateur cobbler, weaver, tailor, or barber, who had had the least practice with their own flowers, to do this layering in the most satisfactory manner. This I know from experience, that very few of them, unless fond of the flower itself, seem to take any care of them, or treat them right, or bloom them well. The London Horticultural Society were at great pains and expense to form a collection of carnations and picotees, both English and foreign; but they had not a man in the garden who knew how to treat them, and they all perished in a year or two."

What this author has stated, is in the main true, and though written twenty years ago, the cultivation of the carnation is still so much confined to florists, that scarcely a general nurseryman in England can supply a good collection of plants. It is true that where they are grown in pots, as they usually are in England, more care is requisite than when grown in the open ground; yet even in the latter place there is a certain degree of attention,—not extra skill,—necessary to produce large and fine blooms and strong and healthy plants. We have noticed the same inattention, and apparent unconcern among gardeners, in regard to a collection of carnations, as mentioned by Hogg, and have often found that

while ever so attentive to most other plants, they seemed to treat this as of little consequence.

We would not have it understood by this, that the carnation is a very difficult plant to manage. It is not so. Yet it is important that certain operations necessary in the cultivation of the plants, should be done in season and done right; on this everything depends. If the layers are not properly made, they will not root: if not done in season the plants will be too weak to stand the winter. If the soil is not good the flowers will be small: and if they are not set out in good season in spring, our dry weather will overtake them before they are established. All, therefore, that is necessary is care. The very best flowers in England are the growth of the weavers, who have but a few hours to spend in their garden in the course of the year.

The carnation and picotee have as yet received but little attention by our amateur cultivators; and it is doubtful if a dozen good collections of a dozen fine named varieties could be found in the country. They are favorite flowers of ours, and we have not only taken some pains to introduce many articles upon their culture in our pages, but have always had a good collection and have raised many fine ones from seed. In one of our earlier volumes, (II, p. 329,) is an excellent article from the Hon. S. Walker, who was at that time an enthusiastic amateur, and had a good collection. Other valuable communications, and extracts from foreign journals, will be found in the succeeding volumes; but the attention which has lately been given to these flowers, has induced us to copy an excellent paper from the *Gardeners' Journal*, by Mr. Dickson, the floral editor, which will save a reference to previous volumes, by those who possess them, and will supply all the information needed by our many readers who have not access to them.

English cultivators grow their carnations in pots; those who wish to try them in this way, can follow the directions of the writer; those who do not, should winter their young plants in frames, placed either directly in the ground or in pots; either way they will keep well, provided the frame is

kept dry. Our mode is to set out the plants early in October, or earlier if the layers are well rooted, in rows, 6 inches apart, and about the same distance in the rows. As soon as very cold frosts occur, we cover them with sashes, and when the ground begins to freeze, we cover the plants just so that the tops of the leaves can be plainly seen, with *dry* leaves—*dry*, for on this much depends. The sashes are then replaced, and are not removed again till the middle of March, when they are taken off, the leaves removed, and the plants aired every fair day till they are transplanted to the flowering beds. In this way we have had the best success.

We have annexed an engraving to show the mode of layering the plants; this should be done immediately, and with the directions of the writer and the drawing, any amateur with good judgment, can layer his plants with complete success:—

THE CARNATION.

Although originally a British plant, the constitution of the carnation has become so enfeebled by the improved cultivation it has undergone, that it is now scarcely able to stand the winter. The most robust-looking plants are those growing on a very dry sandy soil, and it may be by some considered the most suitable medium; but experience points to the necessity for a richer soil, if the object be the raising of the choicer and more delicate descriptions of carnation intended for exhibition. They may be propagated either by seed, piping, or layers; if by the first method, they will require two summers before they put forth their bloom, and even then it is questionable whether more than one in a hundred will be worth preserving. However, new varieties of the carnation can be obtained only by means of seed; and if it be required to procure seed that is worth sowing, recourse must be had to hybridizing, or artificial cross impregnation; for which purpose the produce of the very best sorts only should be employed, and these crossed with the same class of flowers; as, for example, scarlet bizarres with scarlet bizarres; and on no account attempt a distinct cross between bizarres and picotees, for the result will prove of no value

whatever. Those that possess the largest and roundest petals, with the smoothest edge, are to be preferred, from which to collect the seed; but flowers that have long, narrow, flimsy petals, or serrated edges, with a disposition to reflex or turn backwards, should be discarded.

SEEDLINGS.

From what has been stated above, it will have been perceived that the seed itself is remarkably inconstant, producing many varieties from that contained in the same pod, and unless attended by a continuance of hot weather prolonged far into the autumn to afford sufficient time for ripening, it will not prove very abundant; semi-double flowers, however, being by far the most productive. Before the anthers have burst, a few of the inner petals and all the stamens should be carefully extracted with a small pair of scissors or tweezers, which will prevent the petals from retaining the wet; for when the flower begins to fade, and the pericarp or seed vessel is observed to swell, any moisture retained by the petals would cause the embryo to rot. In performing the operation here recommended, take care that the styles which appear above the blooms, like horns, remain entire and untouched, as likewise two or three of the outer rows of petals. A similar operation to that just described, is required to be performed upon the blooms which are to produce the pollen; but here you must very carefully remove a portion of the inner petals by cutting them off just below the stamens, taking care not to pull them, or the stamens will also be extracted; then cut off the stigma down to the pericarp, leaving the stamens entire. This operation, however, should also be performed before the anthers are burst. The blooms may, if gathered, be kept in a bottle of water, in a sunny window, till the anthers open, and the farina or fertilizing powder has become rather loose upon them, when it should be carefully carried to the bloom intended for the seed parent, upon the style of which you must endeavor to lodge all the farina you can; or, in order to make the most of the farina of a favorite carnation, you may carefully extract with a pair of tweezers,

one stamen at a time, as frequently two or three stamens will contain sufficient farina for fertilizing one carnation; a small quantity sufficing when properly applied. By using a fine camel-hair pencil for removing the farina from the stamens of one to the style of the other, several can be fertilized with one favorite sort. About the second day after inoculation, provided it has taken effect, the petals invariably collapse, and the bloom fades; the change taking place sooner with a bloom that is just at its full expansion, than with one which is five or six days older. Every attention must be devoted to preventing the blooms being exposed to much rain, either immediately before or for some time subsequent to inoculation, it proving fatal to the accomplishment of the end here designed; nor should the flowers be disturbed by violent wind, but hang down while in flower, if not under glass, sufficiently to prevent a lodgment of wet in the calyx, which, as has been already remarked, has a tendency to rot the seed; and they had better be retained in that position until the petals are decayed, when they may be loosened and the petals carefully removed—one at a time, lest you break the seed vessel or injure the styles, which should be carefully avoided, leaving them in their inclining position as before. A favorite sort might be fertilized with its own farina, if it cannot be improved by a cross, and this is performed by laying hold of the bloom at the time the farina is perceived to be loose upon the anthers, and drawing the petals upwards, closing and gently pressing them with a slight twist; which operation will generally lodge nearly all the farina upon the style. Let it be borne in mind, that in order to afford the seed a fair chance of ripening, which in a wet season is very difficult, the sooner the fertilizing process is accomplished the better; as also that the leading bloom will invariably produce the finest seed. After the seed is gathered, which must not take place until it is fully ripe, the same being indicated by the pericarp becoming dark, somewhat approaching to black, let it remain in a dry place until January; then clean and put it into a bottle hermetically sealed; or the seeds may even remain in the pods upon a shelf, or in a shallow open box, in a

cool and dry place, till the third or fourth week in April, which is about the best time for sowing them, rather thinly, in shallow pans or boxes, or large flower-pots, with about a quarter of an inch of mould riddled lightly over them, which must be kept rather moist, and as the plants make their appearance, all kinds of weeds should be carefully and entirely removed from among them. It will be advisable to maintain glasses over the pots until the plants are well up; for if the weather be cold and wet, many of the seeds, if not well ripened, will perish in the soil, which this precaution would probably cause to vegetate. By the first or second week in July they will be ready, and it is generally the best time to plant them out, on the first showery opportunity, where they are to remain for blooming, in beds of four rows, of about a foot apart, and at the distance of six inches each in the row, with a space of twenty inches between the beds, for room to examine the blooms; and if the weather be dry soon after planting, they must be plentifully watered, and continually kept free from grass or weeds; for if you neglect them at this time, many of the weakest plants will not bloom the following summer. Seedling carnations are generally as hardy as cabbage plants, and do not require a winter protection at all. In the spring, as they advance in height, they should have hazel-sticks or willow twigs, or something sufficient for their support through the blooming season, when your chief care will be directed to find among them all that are worth preserving; and either dig them up carefully and place them in large pots, or pull up those about them that are of no value, to give room for the growth of laterals for **LAYERING**, in order to perpetuate your new and beautiful varieties; the latter being a much more important, successful, and certain method of obtaining blooms than that of seeding.

MODE OF PIPING.

The mode adopted by many experienced raisers for propagating these flowers by means of piping, if the method sustains any preëminence over that of layering, must be entitled to rank in that position from the former operation being pro-

ceeded with sufficiently early to enable the plants in their advanced state to withstand the severity of a hard winter considerably better than layers, the early propagation of which cannot be pursued so satisfactorily, for want of the requisite length of shoots, those for layering being required of greater length than for piping. A piping that has rooted and been properly treated during the autumn will the following summer produce a principal flowering shoot and several laterals that will not bloom: these laterals are the shoots by which to perpetuate the existence of the choicest sorts, in the manner following: The best method for piping will be to have octagon-shaped glasses, about nine inches in diameter, six inches deep at the sides, and raised about two inches at the top. Although larger glasses are sometimes used, which may be suitable for pinks, as these are less difficult to strike than carnations, the latter do not strike root so regularly altogether under them; it is therefore of some consideration that the size prescribed above should be adhered to as nearly as may be found convenient. They should have leaden frames, and be made as air-tight as possible: bell glasses may be even preferable. The pots should be of such dimensions that the glasses will reach over them fully an inch all round; say seven inches wide by four and a half deep, outside measure; but these pots should not be burnt too hard, nor manufactured of a very dense material, it having been proved by experience that pipings do not strike root so freely when set in pots made of a hard substance. If the pipings are planted in a circle about two inches within the scope of the glasses, without pots, they are in some seasons attended with equal if not more success; but pots are more convenient, as they can be readily removed to any part of the garden to receive the advantages of sun or shade. These preliminaries being arranged, before the flowers are in bloom the parent plants should be relieved of their superabundant shoots; selecting them where they appear most crowded, and either too low down or too high up the stem for layering, but not such a number as to endanger the plants by over-pruning. Let them be cut pretty close to the stem; not stripped, as

that would be very injurious to both the plants and the blooms. The inner-growing shoots, of a moderate length, are those which are really the most suitable for the purpose required, inasmuch as they always root the sooner; the outer-growing strong shoots may then be left in the pots for layering, and sometimes a few favorites of those upon the borders for a second year's blooming; which if adopted, four, five, or a larger number of the strongest, may be pegged down equidistant around the blooming stem, in order to keep them steady, and preserve them from being whirled about and broken by the violent winds of the winter. In the spring neat sticks for the support of each flower-stem should be placed in a circle round the stool, at the top of which a light wire hoop may be fixed, for the purpose of preserving the sticks in a perpendicular position and at a proper distance from each other; or some skeleton wirework, painted green, will look much neater, and may be appropriately adopted by those who prefer it. By this method the writer has obtained upwards of fifty splendid blooms at the same time, upon a single plant; and the number of shoots for either piping or layering produced the second year is generally immense; but it is advisable not to continue them in bloom beyond the second year, as they subsequently fall off in nearly all their most admired properties. Supposing the pipings are taken off as directed, the next step is to carefully tie each sort together, label them, and prepare them for planting by cutting them off below the third joint, or where it is not very tender and juicy, nor yet too hard and woody; then strip the two side-leaves at that joint, and pinch off the next two above, shortening the top leaves a little, whereby their progress may be the better observed. All the pipings should be prepared in this manner before any of them are planted, taking particular care to tie each sort together again with the label as before, and if they are laid upon the ground in shade they will not be injured if necessity required that they should remain there till the following day; for when slightly withered they are better than if planted before the wounds occasioned by their preparation are dry and healed. Let the pots be now filled

to within about half an inch of the top with fresh riddled mould from the soil heap hereinafter described, and with a small taper stick make six or eight holes at equal distances round each pot for the pipings, according to the slender or robust habit of the plant, about an inch from the side; or those who prefer it can thrust the pipings into the soil, about an inch and a half or two inches deep, gently pressing each of them into an upright position with the soil towards the sides of the pots, by means of their fingers, as they proceed; then level the tops by adding a little more soil, and plunge them up to their rims into a nice dry border, or slight hot-bed, where they can have the sun till about one o'clock. Make the border smooth and level round the pots, and water them through a small rose properly made, so that by holding the rose just over the middle of the pot you can moisten each without wetting the hearts and leaves of the pipings; which if not strictly avoided, and should cloudy weather ensue, it will mildew and rot them. In watering, let the border be well saturated round the pots, rather farther than the glasses will compass. Proceed to label and number them, and make an entry of the name of the sort contained in each; for the finest carnation is esteemed of but little value unless its correct name be ascertainable. Now press the glasses over them sufficiently to make them air-tight, and this section of the operation may be deemed complete. The due admission of air and sunlight and judicious watering are the chief matters that will afterwards require the vigilance of the cultivator. If the weather be deemed too hot, let a light and thin cover, somewhat of the texture of a cheese-cloth, be thrown over the glasses, from about nine o'clock in the morning until the sun leaves them; and it is worth the trouble of having this cover supported by some contrivance about a foot above the glasses; they will thereby be rendered less liable to scorch than when laid close upon them, and the soil will retain the moisture much longer. It is seldom found necessary to remove the glasses for the first ten days or a fortnight: they should not be disturbed from their air-tight position unless the dryness of the soil demand it; but if the weather prove

very hot and dry, the glasses should be watered over profusely two or three times within the first ten days, to induce a moist atmosphere beneath the glasses: after this period it will be necessary to take them off early in the morning, for a few minutes only, turning the glasses upside down to air the plants once in five or six days, just as it might be found requisite to water them, as before; and previous to watering scratch the tops of the pots over with a dinner-fork, if hard and green, or if the soil be cracked. It would be also as well to rake out the glass mark, and stir the soil an inch or so deep on the border round the pots; and water it well, the better to make the glasses as air-tight as possible, by pressing them gently over the pots, as in the first instance. These are very important matters, and require particular care in their observance; for much will depend on the discernment and prudence of the cultivator. As soon as root-fibres have been formed, as will be indicated by the additional verdure and growth of the plants, the glasses should be placed over them very lightly, in order that more air be admitted. When they become tolerably well rooted, the glasses being no longer necessary should be entirely removed. It seldom happens, however, that all the plants under the same glass push their roots at the same time, some being for the most part a few days, or even a week, more forward than the rest, as will be perceived by their putting forth fresh leaves. For their winter quarters choose a warm south aspect; under each corner of a frame place a brick; strew the bottom four inches deep with coal cinders; upon this place the pots as near as possible to the glass. In dry weather give them air by drawing off the lights; and when it proves wet give them air from behind by adding another brick; if the weather be severe discontinue watering, and shut the frame close down; at night cover them with matting. When the weather proves mild, with south-westerly rains, let the plants be exposed to it for half an hour, five or six times during the winter, always being careful not to shut the frames close down until they are perfectly dry, as otherwise the wet will hang upon them, and spot and mildew the leaves.

MODE OF LAYERING.

The most successful method of perpetuating choice flowers is by the system termed **LAYERING**, (*fig. 23*;) and having in the preceding pages of this article, developed the modes pursued for raising new kinds by seeding, and in propagating existing sorts by pipings, we have deemed it expedient to explain here the best known practical means of successfully carrying out that system. Layering is seldom begun so early as piping, and never before the beginning of June, which is frequently continued to the middle or end of August, but the sooner it is commenced the better will it be for layers. If, however, a large quantity of these be an object, the operation had better be deferred until the gayest blooms are nearly exhausted; but, on the other hand, where layering is driven off very late, it not unfrequently happens that, owing to an uncongenial season, hundreds will fail to get rooted during the autumn. The operator should be provided with a sharp thin penknife, some layer pegs or hooks, and a barrow or basket of fresh riddled mould from the soil heap, with an additional portion of



Fig. 23. Mode of Layering the Carnation.

drift or sand mixed with it; then proceed in removing to the depth of an inch or two, the top soil from the pots or borders about the plants, and stir the earth a little below it; carefully pinch off the leaves from the lower part of the shoots intended to be laid, and shorten the tops of the upper leaves a little, clearing away the rubbish;* this should be effected some hours of sunshine previously to layering, that the shoots may be more pliant, and in less danger of breaking from the oper-

* The above cut represents the mode of layering the plants. The side shoots, after being cut, as described by the writer, are pegged down, as shown in the engraving. In the open ground no waterings are necessary after that given at the time of finishing the operation, unless the weather prove unusually dry.—*Ed.*

ation, for they are found to be much more brittle early in the morning than after having been subjected to the influence of a few hour's sunshine. Let the pots be now filled with fresh riddled soil; and take a shoot in the left hand, bending it towards the stem of the parent plant, with the forefinger behind it at the second or third joint, or where it is intended to commence the incision, which must be about a quarter of an inch below the joint; let the knife be placed there, and cut fully half-way through the stem, bearing your knife evenly upwards nearly half an inch through the joint, leaving rather the largest part of the divided shoot, to what is generally called the tongue, from whence the roots will proceed, and cut off horizontally the small nib, or portion of the stem attached to the tongue, just below the divided joint, or it will not strike root so freely; and be very careful not to break the part connecting the layer with the stem, or it will not root at all; but bend it sufficiently to open the incision, that you can bear the tongue straight downwards into the soil, and peg it there rather firmly, before you let loose the layer, in order to prevent the gash from closing; place the layers erect as you proceed, and do not let them be leaning about in a slovenly manner; cover them with your soil about half or three-quarters of an inch deep, and give them a light watering through a fine rose, to settle the earth around them. The waterings in dry weather, should be repeated, but always lightly and with moderation, so as not to disturb or wash the soil from the layers; and the cracks, if any appear in the soil over the layers, should be regularly rubbed or raked off. In about six or seven weeks they will be generally rooted, and in a proper state to be potted for winter preservation; therefore, having first prepared your small pots of four and a half inches wide and five inches deep, internal admeasurement—and soil is apt to get dry very soon in those of a smaller size—with an oyster-shell, slate, or pitcher at the bottom of each, and after having about half-filled them with your compost, proceed in the following manner:—Take up the layer pegs, and lift a plant or two, to ascertain if they are properly rooted; and if so, take a sharp knife, and cut the

layers from the old plants, with about half an inch of the stem that connects them with it; then carefully dig up the plants with your knife, if it happen to be about an inch broad, or otherwise with a small trowel, and place a pair in each pot, or three or four round the sides of pots of a larger size; fix them upright, and not so deep as to bury any portion of the lower leaves; it is better to pinch one or two off, or they might decay, and sometimes injure the plants; fill up the pots, and strike them gently once or twice against the ground; water them lightly, but profusely, and place them under large hand-glasses for ten days or a fortnight; this will encourage the roots to strike freely into the fresh soil, and much promote their growth; then take off the glasses, and remove them to a sheltered and rather shady part of the garden, where they can have a free circulation of air and about three or four hours of the morning sun; let them remain till about the middle of November, when they may be removed to their winter quarters.

POTTING THE PLANTS FOR A BLOOM.

At the commencement of April, after having exposed them to the open air night and day for a week, replant them into their flowering pots; a 12-size will hold three or four, a 16 two or three. To insure a good drainage, cover the hole at the bottom of the pot with potsherds, or an oyster-shell with the hollow part downwards; put in, an inch deep, fresh horse-droppings; above this, for two inches more, add coarse riddlings of a compost containing maiden loam, horse-dung, leaf-mould, and sharp sand; then fill with a compost containing ten parts well-rotted flag dug from an old pasture where the soil is heavy two years previous to use, five parts horse-dung from the frames, one part coarse sand, and one part unburnt gypsum finely pulverized; around the root and over the top let this be sifted; the pots should be filled to within an inch of the rim; strike the pots smartly once or twice on the potting board, and place them upon boards raised upon bricks, in an open, airy situation, under an arch of hoops, over which mats can be thrown to protect them during frosty

nights, heavy rains, and cold, drying winds. When they need water, give it in the morning till about the middle of May. To prevent sour incrustations, litter over the surface of the pots with fine sand ; or once in about six weeks gently stir the mould with a sharp-pointed stick : the latter is perhaps the preferable mode. All decayed leaves must from time to time be taken off. To supply the exhaustion of vegetative matter occasioned by frequent watering, give them a top-dressing about the middle of June by sifting over the pots rotten horsedung two years old, to the thickness of half an inch. Some raisers use sugarbakers' scum and nightsoil ; but these are in reality too hot. About this time if any of the plants look in a dying state, it will arise from worms being in the pots ; for which the cure is easy—irrigate two or three times a week, for a fortnight or more, with lime water. When they shoot up for bloom, they should be supported by fixing them with loose collars of wet bass to sticks four feet long. As soon as the pods begin to swell, water them freely, and keep them moist as long as they continue in bloom ; this will be best done with the pipe of the watering-pot ; and to prevent the mould being washed from the roots, place an oyster-shell upon the earth, to receive the water and break its force. It will strengthen the main stem to strip off the side-shoots as soon as they appear. Should the flower be for exhibition, leave not more than two or three pods on a stem. In July gird the pots, to prevent them bursting, with narrow slips of bladder wetted with gum-water, lapped once or twice round : this will require easing from time to time as the pods enlarge. When the guard-leaves expand and fall back, they must be supported with circular card-paper collars, three or four inches in diameter, having a hole in the centre large enough to admit the pod with ease, which may be effected by making a slit from the centre to the circumference. When in full bloom, they must be either carded or fixed to the sticks by pieces of thin brass wire, to guard them from agitation by the wind, as well as to support the additional weight of the card, and shaded with an awning to keep off rain and the intense heat of the sun, which will otherwise spoil the flow-

ers ; but they must not be deprived of air. Some use paper caps in form of an umbrella, fixed upon sticks. The winter protection need only be afforded to the choicest sorts, which ought never to receive the slightest check at any period of their growth, in order to bloom them to perfection ; but for the ordinary kinds, by adopting the mode of propagation prescribed in the earlier portion of this article, every piping will produce a beautiful plant, that will generally endure the severest winter, either in pots or on the borders, without any protection whatever, except securing them from violent wind, which sometimes proves very destructive, particularly on the breaking up of a frost, when the ground is very tender, and before the sap regains its proper circulation in the plants ; and this is generally effected by having the pots previously placed in a sheltered situation, and those upon the borders tied with a shred of matting to a small neat stick thrust into the ground sufficiently deep to be firm. But their successful cultivation will greatly depend on the proper preparation of a suitable soil-heap ; for without a rich and properly made compost it will be almost impossible to produce the vigorous and healthy plants or the beautiful and fragrant blooms that are entirely the amateur's object to possess ; for to expect that this can be effectually accomplished by merely planting them in any particular compost alone will be followed with disappointment. For a general compost the following will be found admirably adapted to the cultivation of the carnation : Take any convenient quantity of turf, three or four inches thick, from an upland pasture, the procuring of which is attended with least difficulty when such a field is under the operation of the plough ; lay it together in a square flat top ; heap for two or three months with an equal quantity in bulk of rotten stable-dung regularly mixed with it ; and after that time let it be cut down in thin slices well chopped with the spade, frequently turned over, and in due time exposed as much as possible to be sweetened by the frost, but in open weather always left on a ridge, to throw off superfluous wet, until it has become a regular heap of mould of nearly twelve months' standing, or until both dung and turf are sufficiently

decomposed as to be readily run and rubbed through an inch riddle. If you find this too light and sandy, there must be a sufficient quantity of marl or stiffish loam mixed and well incorporated with it, to make it altogether rather of an adhesive quality, which will make it suitable for every kind of florists' flowers. On the other hand, if your turf has been procured from a field of stiffish land, then a sufficient quantity of coarse drift or river sand, or old mortar rubbish beaten to pieces, or both, should be riddled and well mixed with it—these being excellent materials for internal drainage, which is the principal object of such a mixture with such a soil, and absolutely necessary for the health and vigor of the carnation; lime is also very good for the purpose, though it does not possess any vegetative influence: above all, you must endeavor so to manufacture your compost as that it shall become permeable and retentive in imbibing a necessary quantity of water, and yet admitting of sufficient percolation for the exudation of a superabundance.

PROPERTIES OF A FINE CARNATION AND PICOTEE.

The peculiar properties of the picotee, whose blossoms display such varied and fanciful delineations, presenting all the delicate and softer tints of the carnation without its preciseness and regularity, have caused it to be cultivated separately and as far removed from each other's society as might be convenient, lest the pollen of the picotee, with its spotted leaves and indented edges, should become impregnated with that of the carnation, and so spoil its breed. This precaution, however, is only necessary where the florist's attention is principally directed to raising fine blooms from seed; and all danger is removed by the admirable method of propagating this flower by means of layers, the particulars of which have been described. The markings of the picotee seem pencilled by the hand of Nature in her sportive mood; at one time on a snow-white ground a vast profusion of small irregular spots appear—red, black, or purple; at another a few straight lines, or dashes of the pencil only, are seen on some of the larger petals; then a fanciful mixture of both together,

most beautifully blended ; sometimes the edges or extremity only of the flower-leaves will be tinged and laced all round, or the whole covered with a netted and motley mixture of shining colors. More than ordinary pleasure is afforded, after gazing on the more dazzling beauties of the carnation, by an examination of the admirably soft and delicate graces of the picotee. They are distinguished and classed as heavy and light red, purple, and rose edges, being sprinkled with these and other colors on a clear white or yellow ground. The yellow picotee is a very tender plant, and preserved with great difficulty in our damp climate. Its extraordinary beauty renders it a universal favorite. Although it is customary to speak of the picotee as though it were distinct from the carnation, it is nevertheless but one of the principal divisions into which that splendid flower is classed ; hence we have scarlett bizzarres, crimson bizzarres, pink and purple bizzarres—purple flakes, rose flakes, scarlet flakes, &c. The value of a carnation is estimated by the brightness of its various tints and hues, and by the formation and construction of the petals. The color, whether in bizarre, flake, or picotee, should be clear, rich, intense, brilliant, and distinct, and the ground a pure white, of which each petal should have its due proportion (say nearly one-half) without a speck, blotch, or tinge of any sort ; but plain or self-colored leaves are accounted a great defect. The distribution of color in stripes should be nearly equal, and proportionate in every petal, commencing at the extreme edge, gradually and evenly diminishing in breadth as they approach the base or just enter the calyx, where they should terminate in a fine point. A flake should not have less than three divisions or stripes on each petal, a bizarre not less than five ; but too many in either do not add to their beauty or perfection, broad petals with broad stripes having much the finest appearance. A flake is distinguished by having one color in stripes upon a white ground—as scarlet, purple, rose, or pink ; a bizarre, by having two colors in stripes upon a white ground, and whichever color predominates it gives the name of the class to the flower—as scarlet, crimson, pink. A perfect picotee is distinguished by the

color being confined to the margin or edges of the petals; in other respects as "the carnation." Some have a regular stripe or solid marking round the edges; others a series of little narrow stripes blended together in one; and each is equally beautiful. But their marking should not run down the petals, or the white up through the edging of them: they should be perfectly white, and even round the edge of every petal in the bloom. The stem of the carnation should be moderately strong and upright, and free-growing plants are very desirable. The foot-stalks should be elastic, of a proportionate length, and sufficiently strong to support the blooms. The calyx or pod should be at least an inch long, not so full as to require a bandage to prevent its bursting on one side, and of sufficient substance and firmness to support the narrow bases of the petals in a close circular body. The petals should be large and broad, and the nearer they approach to roundness the better, with a sufficient degree of firmness and elasticity to preserve a buoyant position, the bloom being without a wrinkle and perfectly smooth on the edge; they should also possess a slight disposition to cup, but not to curl abruptly, on the outer edge: for that fault in picotees would almost hide their marking, and the delicately fine transparent texture and crystalline appearance so distinguishable in some carnations is in the highest degree desirable. A narrow reflexed or flimsy-petalled flower is highly objectionable. The outside petals or guard-leaves should be the largest and strongest, which ought not to fall much below a horizontal position, and each row of the inner petals should rather diminish in size as they approach the centre of the bloom, where they should be rather inclining to upright. The number of petals should be about eighteen to twenty-five, and these should form an elegant circular flower when viewed from the crown, and if seen from the side present the upper half of a globe, or the half of an ellipsis or oval; and they should be disposed with the greatest regularity alike all round, to show the beauty and perfection of every petal. The bloom ought not to be much less than three inches in diameter. It can hardly be expected to meet with all these

qualities in any single bloom ; but the flower that approaches nearest to the description here given will be considered the most perfect carnation.

ART. V. *Flowering of the Victoria Regia in Salem, Mass.*

By J. F. ALLEN, Esq.

THE *Victoria Regia* has just blossomed in the garden of J. F. Allen, Esq. of Salem. On the 21st of July the first flower expanded, and closed again on the 23d. Other buds have succeeded the first, and, probably all the autumn months Mr. Allen's plant will weekly afford one or more flowers.

Our readers are generally aware that this queen of aquatic plants has already flowered with Mr. Cope and Mr. Buist of Philadelphia, and Mr. Feast of Baltimore. Mr. Cope's was the first to bloom in the country, and he liberally supplied seeds or plants to the others who have flowered it, as well as to many who did not succeed in growing them. Mr. Allen's is the first which has flowered this side of Philadelphia.

The expense of erecting an appropriate place to grow the *Victoria* is considerable. Mr. Cope, we believe, erected a house especially for his plant, at a great expense. Messrs. Buist and Feast grew their's in small tanks erected in houses already built. Mr. Feast succeeded in producing a flower of even larger dimensions than Mr. Cope. Mr. Allen has fitted up a suitable place for his plant in one of his grapehouses ; and besides the cost of doing this, the constant exhalation of moisture from the tank has done much injury to the crop of fruit, and lessened the product one half. We presume, however, that he feels amply repaid for this in the success which has attended his efforts, in flowering such a magnificent plant, and in being enabled to show to his friends and the public such a splendid specimen of the floral treasures of the tropics.

By the kindness of Mr. Allen we are now enabled to present a diary of the complete growth of his plant from the time of sowing the seed. It will be read with much interest.

Such a remarkable growth in so short a space of time can scarcely be believed. Under favorable circumstances it comes forward with the rapidity of a sunflower. The huge and wonderfully formed leaves are weekly produced, and are succeeded by flowers in the short space of five or six months from the seed.

Mr. Allen has already exhibited two or three of the leaves of his lily at the hall of the Massachusetts Horticultural Society. He has, thus far, we believe, also thrown open his house to the admission of all who desire to see the *Victoria* in bloom, an act of liberality which deserves, and will receive the thanks of all who appreciate beautiful plants.

The *Victoria* has been fully described, and elegantly illustrated on plates of full size, in a large folio work by Dr. Hooker, in which a full history of the plant is given. This volume is in the Library of the Massachusetts Horticultural Society. But a full account of its discovery, history, introduction to England, &c., will be found in the earlier volumes of our magazine.—Ed.

MR. C. M. HOVEY,

Sir,—At your request I send you a copy of my diary of the growth of the *Victoria Regia*. The seed was ripened near Philadelphia, at Springbrook, the seat of Caleb Cope, Esq., the gentleman who first succeeded in cultivating this plant in the United States, and showing its wonderful leaves and flowers to admiring multitudes. The seed was presented me by him, and was sown in the early part of December, in a box of loam, in a tub of water, but was removed and plunged in soil in the tank where it vegetated and has since continued to grow. The temperature of the water was kept at 74 to 78°, until January, when it was raised to 78 to 82°, and on the 13th of this month a shoot like to that of the finest grass made its appearance, and in eight days had lengthened three or four inches.

Jan. 22—The second shoot appeared, and attained when matured the length of six inches. It was stouter than the first, and had a barbed or arrow-shaped termination.

- Jan. 29—The third shoot came out, and was nearly nine inches long at maturity, in shape not unlike the small leaves of the *Calla Ethiopica*.
- Feb. 5—The fourth shoot appeared. This reached the surface of the water, and floated a leaf, measuring at maturity 4 inches in length, by 1 inch and $\frac{3}{4}$ ths in width.
- 11—The fifth came out, and at maturity measured 4 and $\frac{3}{4}$ ths by 2 and $\frac{3}{4}$ ths inches.
- 18—Came the sixth, which measured when mature, $5\frac{1}{2}$ by 4 inches.
- 24—The 7th leaf appeared and measured 6 inches by $5\frac{1}{2}$.
- March 2—The 8th leaf appeared and measured 7 by 6 inches.
- 8—The 9th leaf came up and measured at maturity, $9\frac{1}{2}$ inches in diameter, and this leaf (with all that have grown since) was nearly round.
- 15—The 10th leaf appeared and measured, matured, 13 inches in diameter.
- 21—The 11th leaf appeared and measured, matured, 16 inches in diameter.
- 28—The 12th leaf appeared and measured, matured, $18\frac{1}{2}$ inches in diameter.
- April 4—The 13th leaf appeared and measured, matured, $20\frac{1}{2}$ inches in diameter.
- 11—The 14th leaf appeared and measured, matured, 24 inches in diameter.
- 19—The 15th leaf appeared and measured, matured, 30 inches in diameter.
- 28—The 16th leaf appeared and measured, matured, 33 inches in diameter.
- May 7—The 17th leaf appeared and measured, matured, 36 inches in diameter.
- 14—The 18th leaf appeared and measured, matured, 44 inches in diameter.
- 19—The 19th leaf appeared and measured, matured, 49 inches in diameter.
- 24—The 20th leaf appeared and measured, matured, 50 inches in diameter.

- May 30—The 21st leaf appeared and measured, matured, 53 inches in diameter. This leaf had the salver edge, and all that have followed it have, measuring 2 to 3½ inches deep.
- June 6—The 22d leaf appeared and measured, matured, 55 inches in diameter.
- 12—The 23d leaf appeared and measured, matured, 57 inches in diameter.
- 20—The 24th leaf appeared and measured, matured, 60 inches in diameter.
- 26—The 25th leaf appeared and measured, matured, 64 inches in diameter. During the past few days there has been a great increase in the crown of the plant, its diameter appearing to be 5 or 6 inches, indicating the approach of a flower bud.
- July 3—The 26th leaf appeared and measured, matured, 66 inches in diameter. The bud was visible to-day, just emerging from the scale or crown of the plant.
- 10—The 27th leaf appeared and measured, matured, 68 inches in diameter. The flower bud fast coming up, with the 28th leaf just beneath it. On the 13th of July, just six months from the seeds vegetating, this bud reached the surface of the water; on the 14th it projected 2½ inches above it, and measured on the 15th 5 by 3½ inches, without the calyx. The past three days the bud has, towards evening, gradually settled down under the water, but has been found early in the morning, standing erect again out of the water. On the 15th a second bud was seen approaching the surface, and the calyx lobes began to open, and to show the white petals.
- 18—The 28th leaf appeared, not yet matured; the 21st a third leaf was visible to-day, and a second bud reached the surface, and in the afternoon withdrew under the water, as the first had done. At 11 A. M., this day, the calyx lobes of the first bud commenced

unfolding ; at 4, P. M., the petals, a pure white, followed slowly, and from 5 to 6, they rapidly opened, showing the flower in its first, and, in my estimation, most beautiful state. It remained in this condition till after 6 the next morning.

July 22—The flower, soon after 7, A. M., began to change, the white or outer petals expanding widely, showing the centre ones, tinged or spotted with crimson, and measuring at one time 13 inches. At 11 these outer petals began to close, and at 12, M., all but the calyx lobes and one row of the petals had closed loosely. From 4 to 6, P. M., it again opened, and exhibited the inner and crimson staminate petals. At 6 30 to 7, P. M., the opening was complete, but the outer petals were somewhat wilted. At 9, P. M., the interior petals or stamens changed to a golden hue, and at this moment it was very beautiful. On the morning of the 23d it was closed loosely.

The account by Mr. Cope of the flowering and growth of his, the first *Victoria Regia* grown in this country, may be found in the *Horticulturist*, Vol. VI, (page 460.) It will be noticed on comparison, that the bud followed the 27th leaf, and with the 28th, in both plants. The salver or up-turned edge to the leaf, appeared at an earlier period on my plant, which I attribute to growing it at a lower temperature of the water. My plant vegetated at midwinter, and, as no artificial heat was applied to the water after the first of June, its progress may be considered as satisfactory. A greater degree of heat, and a temperature of not less than 78° at night, both to the air and water, would give a more rapid vegetation. Under my treatment, every seventh day a leaf bud has reached the top of the water ; a higher temperature would cause this to be effected every fourth or fifth day. With the cold east winds that we are subject to in Salem, the mercury in the lily house, at 6, A. M., has, day after day, the past month, been as low as 60 and 62°, with the temperature of

the water at 70 and 72°. So long as fire heat was applied to the boilers, the temperature of the house was 76 to 90°, and of the water 76 to 80°.

Yours, respectfully,

JOHN FISK ALLEN.

Salem, Mass., July 23, 1853.

ART. VI. *How to grow Specimen Pelargoniums.* By the
EDITOR.

ALL amateur or professional plant cultivators are familiar with the term specimen plant,—implying as it does a finely grown and symmetrically trained one,—no matter of what kind it may be. A verbena, straggling over a few crooked sticks or a shapeless trellis can scarcely be called a specimen; but if the sticks are neatly made, and the plant carefully trained so as to quite cover them in some symmetrical shape, and clothed with flowers, it becomes what the word means, a *specimen* of what the verbena may be when skilfully cultivated. So with a pelargonium or geranium. A tall lean plant, with a few green leaves at the top, and three or four clusters of flowers, does not show superior cultivation, or give any idea of what it may be made under skilful hands. But let it undergo a year's care of an intelligent cultivator, and he will show what *culture* is—and will produce a specimen which would no more be supposed to be the same plant than a pear tree would be taken for a currant bush. A specimen is, therefore, what a plant may be made by skilful treatment; and this treatment can only be afforded by those who have studied the habits of the plant; who know its capacity of growth; and who have reduced such knowledge to its practical application.

It is but a few years since plants have been grown to that perfection which has given them the name of *specimens*; and their origin may be attributed to the Exhibitions of the London Horticultural Society which, by the liberal premiums

offered, produced such competition among the exhibitors as to lead to the best results. At first the improvement was but slight, but as each amateur tried to excel his neighbor, more care and skill were bestowed upon each and every plant, till becoming more and more acquainted with their habits they have arrived almost at the perfection of cultivation.

The pelargonium has received especial attention; and an unusual degree of skill has been applied to the production of beautiful specimens. This improvement in growth, in connection with the remarkable progress made in the production of new varieties, has contributed to render it one of the most popular, as it is one of the most beautiful, of greenhouse or parlor plants. Specimens are frequently exhibited which measure four to six feet in diameter, and display a *thousand* trusses of flowers!

To aid amateurs in the growth of this beautiful plant we have given the annexed engravings, which fully illustrate the mode of training. Now is just the time to commence operations by cutting down the old plants, and those who have good ones can save one year, by taking such as have already advanced to nearly the state represented by one of the engravings, (*fig. 25.*) Those who do not possess plants suitable for the purpose, may begin with the young ones in October, as represented in the first drawing, (*fig. 24.*)



Fig. 24. Pelargonium pruned the first year.

In the cultivation of pelargoniums various methods of training have been tried: the pyramidal shape, which would appear the best, it has been ascertained cannot be carried out with good success. Owing to the upward tendency of the sap it has been found that an even display of flowers over the entire surface could not be obtained; consequently that style was abandoned for what is now termed the low bushy form. In this shape uniformly beautiful plants can be produced, completely covered with the superb flowers. The object in all cases, is to obtain a low compact bushy specimen, and have it laden with flowers.

Our first drawing (*fig. 24.*) represents a plant as it should appear in October, just after the cuttings have been potted. The top is then stopped so as to make the side shoots break freely. Three only are allowed to remain; they are treated like the older plants till early in spring, when the side shoots are topped and tied down to small pegs just at the edge of the pot. In this way they go on till the plants have done flowering, when they are again pruned, and this time somewhat differently, as represented in the next engraving, (*fig. 25.*) They are not cut down only to last year's wood, thinning



Fig. 25. Pelargonium pruned the second year.

out all shoots that are crowded, and selecting those to remain which will give a symmetrical outline to the plant. When these shoots begin to break they should be looked over, and any superfluous eyes rubbed off. At the shift which usually is made in August or September, if the branches appear too high, the plant may be potted an inch or two lower, and the soil filled up around the old stem. In this way the lower tier of branches is brought almost to the edge of the pot.

When the plants are sufficiently advanced in February they should again be stopped by pinching out the ends of the new growth. Now put the plant in order; tie out the branches regularly and symmetrically, taking out any superfluous shoots. All will go on right after this, and the plant will make a splendid show this year, and prove a miniature copy of what it will be another season.

We have now arrived at the third year, when the plant should be pruned as in the last engraving, (*fig. 26.*) Rather more care will be required in doing this, so as to preserve just the right number of shoots, and in the right places. The usual routine of potting, stopping, tying down the branches, &c., must be done, and the spring will bring with it an ample reward for all the patience, industry and toil

bestowed upon the specimen. It will measure eight or ten feet in circumference, and will present a handsome bushy plant, literally loaded with its superb blossoms.

The same pruning may be performed again, and even a fifth or sixth year, but we prefer moderate sized plants to such huge ones, and therefore bring up a succession of plants, and throw them away after the fourth year.



Fig. 26. *Pelargonium* pruned the third year.

These hints and drawings, carefully followed, will enable any amateur to secure beautiful specimens of pelargoniums. Begin at once with the year old plants, if you have them; if not, take the young plants in October.

ART. VII. *Floricultural and Botanical Notices of New and Beautiful Plants, figured in Foreign Periodicals; with descriptions of those introduced to, or originated in, American Collections.*

VERBENA PHENOMENON.—This is the name of a new scarlet verbena, raised last year, by Francis Carter, Esq., of Columbus, Ohio, and placed in the hands of Geo. C. Thorburn, seedsman, of Newark, N. Y. Mr. Thorburn has raised a fine stock of plants, which were offered for sale on the first of May. By the kindness of Mr. Thorburn, we were favored with a plant, but so late that it is not yet in bloom; a flower was sent us with the plant, but it was received in such a faded state, that no correct opinion could be formed of its merits, otherwise than that it is a most vigorous grower, and

a very large truss. Mr. Thorburn, who is a good judge of a verbenas, states that it surpasses "both of those fine sorts, *Defiance* and *Orb of Day*;" and if so, it will be a splendid addition to any collection. Mr. Thorburn has had it since September last, and has proved it "to be of the best habit, most glowing color, and most abundant bloomer ever sent out." We copy Mr. Carter's description of this verbenas:—

"My *Scarlet verbenas* has been thoroughly tested in all situations; it is of a deep rich scarlet, alongside of which that gem of a scarlet '*Defiance*,' looks of a pale and brick red; it is of a deeper glow and more velvety texture, a sort of '*bloom*' being thrown over the whole corymb: it is a broad, clean edged flower, with fine segment and white eye; the pips larger than '*Hovey's America*,' many of them having covered a quarter dollar coin; it was examined by the best florists and connoisseurs of Cincinnati, whose judgment in flower subjects stands as high as any in the Union, and who, *una voce*, pronounced it the finest scarlet of any description ever yet seen here, one florist offering 100 dollars for it on the spot. I assign it to you, naming it '*Al*,' but as you have complimented it a '*Phenomenon*,' I am content, and certain it will do you infinite credit."

KING OF THE PRAIRIES ROSE.—Mr. Samuel Feast, of Baltimore, has a new Prairie rose, which he calls the King. It is stated to be superior to any of the Prairies, being cup shaped, of a bright peach color, darker in the centre, and having the fragrance of the Damask. The outer petals, twenty-four in number, are of a fine form, slightly turning back, which gives the rose a globular shape until fully expanded. Mr. Feast, we presume, will offer it for sale next year.

EUPATORIUM CANESCENS.—Mr. Meehan, gardener to Mr. Cope, Philadelphia, describes in the *Florist*, a new species, under this name, which he says resembles the *Agératum mexicanum*, except that the flowers are white. It is a very free bloomer, and will grow well in any ordinary treatment. He has no doubt it will prove a valuable addition to our stock of white flowering plants for bedding out.

MISCELLANEOUS INTELLIGENCE.

ART. I. *Domestic Notices.*

GLAZING SASHES WITHOUT PUTTY.—Mr. Editor:—I was somewhat surprised to observe in your July number an article by an anonymous writer, —and which by your comments you appear to think very delectable,—impeaching my veracity in stating my conviction that glazing without putty is not “American.” The course you have adopted is certainly an unusual one, and rather insulting to any one you are pleased to term your correspondent. It has been truly said “that in this country no honest man need wear a mask;” especially true is this saying in regard to an enquirer who wishes to establish a fact on vague assertions and doubtful suppositions. I appended my name to my remarks, and unless you are ashamed of your correspondent, or him ashamed of himself, his name would be appended to his rather uncourteously couched remarks. And now let me state that I should be much pleased if your correspondent will inform me what he means by “chapter and verse.” As I am but little versed in logical ambiguities, I am quite at a loss to know what he wishes a reply to. Let me request “Beta,” therefore, like an honest straightforward enquirer after truth, to state, over his own name, what he wishes me to answer or explain, and I shall most gladly do so, to the full extent of my knowledge of the matter in question. But let me add, that anonymous writers, of such a character as his remarks would manifest him to be, are considered beneath my notice.

Meantime, Mr. Editor, as you have manifested much anxiety to appropriate the merit of originating this system of glazing to yourself, it would not be amiss if you would take the trouble to inform us where we can find the houses that you erected in 1833, and glazed on this plan, as I and some others would like to examine them. No doubt it is all true you say, but be pleased to observe, Mr. Editor, that your assertion, without some more proof, is no better than the assertion of any of your correspondents, your endorsement and all. As you gave a speedy insertion to Beta’s note, you will oblige by inserting this in your August No.; otherwise, circumstances will possibly prevent me from seeing his rejoinder, and be therefore unable to answer his inquiries. Let me add that in making my remarks I was not actuated by any desire to deprive America of the credit of originating anything new in horticulture; and if it be American, very good; but let us enquire whether it is or not, and let it be done in an open and friendly manner, and let us accord praise to whom it is due.—Yours, respectfully, R. B. LEUCHARS, *July, 1853.*

We do not exactly like some of the expressions in Mr. Leuchars’ remarks, as they are quite uncalled for, and out of place in any discussion which is to elicit the truth. They belong rather to that class of journals so happily described by Dickens in the *Pickwick Papers*. We are ready to acknowledge that it is not our custom to admit anonymous attacks upon any writer in our columns; and in the case of “Beta,” we did not consider it as of that class. The writer gave us his name, accompanying his note,

and did not even intimate that we should not use it; and we, therefore, to remove any doubt on this point, now state that our correspondent is Mr. T. Meehan, gardener to C. Cope, Esq., Philadelphia, and if Mr. Leuchars considers him "beneath his notice," he is not bound to reply.

The latter part of Mr. Leuchars' remarks shows him to have become quite "Amercanized." It is Yankee all over to answer one question by asking another. After he has replied to Mr. Meehan, we will then answer any and all questions he wishes to ask of us, and give all the proof necessary to show the truth of our statements. In the mean time all who wish to have ocular demonstration of what we have done in the way of glazing on the "American System," as Mr. Meehan has termed it, have only to visit our grounds at Cambridge.—[Ed.]

ART. II. Societies.

PENNSYLVANIA HORTICULTURAL.

The stated meeting of this Society was held on Tuesday evening, 19th July, in the Chinese Saloon, Philadelphia,—Gen. Patterson, President, in the chair. The exhibition of plants was unexpectedly large for midsummer; each collection contained some possessing interest, which it might be well to notice. Among those brought by the President's gardener, were a fine large plant of *Plumieria rosea*, which the General sent home from Mexico, and has now flowered for the first time. *Tabernæmontana coronaria*, in fine flower. *Columna Schneidiana*, and a number of air plants. Among Robt. Buist's, were *new* plants, and shown on this occasion for the first time—*Cyrtanthus magnificus*, *Lycaste tetragona*, *Achimenes Margaretta*, *Fuchsias Orion*, *Gem of the Season*, *Alpha* and *resplendens*, and *Gloxinia Victoria Regina*. F. Lennig's gardener exhibited two very fine plants—*Gardenia Stanleyana*, in full flower, and *Plumieria rosea*. Caleb Cope's had three new species, exhibited for the first time—*Justicia bicolor*, *Promænæ stapeloides*, an orchid, and Hovey's globe amaranthus, a fine specimen of *Clerodendron Kämpferii* *Allamanda nereifolia*, &c. W. W. Keen's contained a *new* plant, *Hoya campanulata*, very pretty, and seen for the first time; *Lophospermum Hendersonii*, *Fuchsias*, &c. James Dundas' gardener presented handsome *Fuchsias*, *Gloxinias*, and a most beautiful air plant, the *Cattleya Mossia*. The fruit table was laden with tempting specimens of peaches, very large—called *Late Admirable*—a seedling tree in fruit, growing in a 14-inch pot; also grapes of varieties, *Black Hamburgh*, *St. Peters*, *White Frontignan*, *Tokay*, and *Purple Damask*, from Mr. Cope's grounds. From Eden Hall, were *Black Hamburgh* and *White Muscat* grapes. Very large and luscious *Moorpark* apricots, by Thos. Robins. Wm. V. Pettit and Wm. Johns, H. P. McKean, large fine gooseberries, called *Cook's White Eagle*, *Farrow's Roaring Lion*. Isaac B. Baxter had seedling apricots, plums, the *Royal hative* and *Jefferson*; and 3 kinds of gooseberries. Mr. Buist, *Breda* apricot, pears. A *Bloodgood*, *Windsor*, *Madeline*, *English* and *French Jargonelle* pears, currants, *Black grape*, *Black*

Naples, and Late Black kinds; Parker seedling apricots. H. W. S. Cleveland, St. Michael figs, a choice dark variety. Wm. Johns, Green figs; and John Perkins, seven varieties of apples.

Mr. Cope's gardener exhibited a table of fine esculents.

Premiums awarded by the Committee on Plants and Flowers:—Plants in pots—for the best twelve, to T. Fairley; for the second best, to T. Meehan; for the third best, to Wm. Grassie. Plant in a pot—for the best specimen, *Gardenia Stanleyana*, to John Pollock. Indigenous plants—for the best, to Alex. Parker. Plants shown for the first time—a premium of \$3, for *Hoya campanulata*, to Wm. Grassie; one of a dollar, for *Justicia bicolor* and *Gomphrena Hoveyi*, to T. Meehan; and one dollar to T. Fairley, for a collection of *Achimenes*, *Gloxinias*, and a *Cyrtanthus*. Bouquet design—for the best, to Isaac Collins. Basket—for the best, to T. Meehan; for the best of indigenous flowers, to the same.

Special premiums—Two dollars to James Bisset, for *Cattleya Mossia*, a fine specimen; and \$3 to Isaac Collins, for a large collection of plants, including a beautiful specimen of *Plumieria rosea*, orchids, and other green and hothouse plants.

By the Fruit Committee:—Grapes—for the best black variety, Black Hamburg, to T. Meehan; for the second best, to A. J. Smith. For the best of a white variety, White Frontignan, to A. J. Smith; for the second best, Golden Chasselas, to T. Meehan. Apricots—for the best, to Thos. Robins, for Moorpark; for the second best, to Wm. V. Pettitt, for same kind. Plums—for the best, the Imperial Gage, to Isaac B. Baxter; for the second best, Mirabelle, to A. Parker. Figs—for the best, to H. W. S. Cleveland, for St. Michaels; for the second best, to Wm. Johns. Gooseberries—for the best, to A. Burnett, gardener to H. P. McKean, for Roaring Lion; for the second best, the Large Green, to Isaac B. Baxter. Apples—for the best, the Early Harvest, and for the second best, the Bough, to John Perkins; and special premiums of \$3 for very fine peaches, and \$2 for a seedling peach tree in fruit, in a pot, to Thos. Meehan.

By the Committee on Vegetables:—Tomatoes—for the best half peck, to James Jones; for the second best, to Wm. Johns. For the best display of vegetables, by a private gardener, to Thos. Meehan.—THO. P. JAMES, Recording Secretary.

ART. III. *Massachusetts Horticultural Society.*

Saturday, July 2d, 1853.—The stated quarterly meeting was held to-day,—the President in the chair.

No business was transacted, and the meeting was adjourned four weeks.

Exhibited.—FLOWERS: From Messrs. Winship, Breck & Son, Parker Barnes, and James Nugent, cut flowers in great variety. From Miss Russell and Miss M. M. Kenrick, basket of flowers. From S. A. Danforth, fine Double Indian pinks. From J. A. Kenrick, *Magnolia macrophylla*, and *Rhododendron maximum*. From James Nugent, Miss Russell, E. M. Richards, and J. Hovey, bouquets.

FRUIT: From F. Dana, Seedling cherries. From C. E. Grant, Napoleon Bigarreau (?) cherries. From N. Stetson, grapes—Black Hamburg, Cannon Hall, White Frontignan and Wilmot's Black Hamburg. From M. H. Simpson, grapes—White Nice, Black Hamburg, Cannon Hall, and Black Prince. From Mrs. Durfee, grapes—Chasselas White, Royal Muscadine, Muscat of Alexandria, extra fine, Black Hamburg, Victoria, and Black St. Peters. Geo. Walsh exhibited several boxes of his Seedling cherries, Nos. 1 and 2, which, from their size and beauty, attracted the attention of visitors. From E. Myrick, cherries—Bigarreau de Mezel. The same cherry has been received from Europe, under the name of Bigarreau Goubaulis, and Monstreuse de Bavay.

From M. P. Wilder, cherries—Duchesse de Pallua, fine flavored and productive; strawberries, (from imported vines)—Hericart de Thury, Marechal de la Cour, Barnes's new Large White, the handsomest and most productive of the white variety. The above three were the only ones Col. Wilder considered worthy of retaining, out of twenty-one varieties received. From Col. Fessenden, a box of the Hautbois variety, raised from seed received by him from the valley of the Rhine.

From Hovey & Co., cherries—Flesh Colored Bigarreau, Knight's Black Eagle, Manning's Black, Royal Duke, and Sparhawk's Honey. From Geo. W. Colburn, Walsh's Seedling cherries. From J. Nugent, cherries—White Tartarian; grapes—White Sweetwater, White Frontignan, and Black Hamburg. From A. Bowditch, Napoleon Bigarreau cherries. From M. H. Simpson, cherries—Black Tartarian, Bigarreau or Graffion. From O. Johnson, peaches—Coolidge's Favorite, fine; Coe's Transparent. From E. Wight, cherries—Black Tartarian and Napoleon Bigarreau, extra large. From J. Pritchard, grapes—Royal Muscadine, Black Hamburg, fine. From S. Bigelow, Black Hamburg grapes. From H. Vandine, cherries—Downer, Black Tartarian, Napoleon Bigarreau. From J. W. Foster, Knevet's Giant raspberries. From J. B. Moore, cherries—Black Eagle, Davenport, Black Tartarian.

July 9th.—Exhibited. **FLOWERS:** From Messrs. Hovey & Co., a fine collection of carnations and picotees, embracing the following varieties:—Admiral Kurzon, Diana, (Hovey's,) Belle Americaine, (Hovey's,) Monarch, Gen. Taylor, (Hovey's,) &c. From Dr. C. F. Chaplin, a large collection of Seedling picotees. Cut flowers and bouquets, from P. Barnes, Winship & Co., M. Moriarty, J. Nugent, Miss Russell, Dr. E. Wight, T. Page, E. M. Richards, M. Fitzwilliam.

FRUIT: From A. Bowditch, two boxes raspberries. From Hovey & Co., cherries—Hovey's Seedling, (fully sustains its former reputation;) Bigarreau d'Esperin, (new;) one dish Early York and Clinton peaches. From G. Walsh, Seedling cherry No. 3. From J. Parker, cherries. From O. Johnson, cherries—Black Tartarian, Black Eagle, Napoleon, all fine. From J. S. Sleeper, cherries—Florence, fine. From J. F. Allen, nectarines—Hunt's Tawney, Victoria, and others; grapes—Flame Colored Tokay, and Black Hamburg; peaches. From H. Vandine, four varieties of cherries. From J. Owen, cherries—May Duke.

July 16th.—Exhibited. **FLOWERS:** From J. Breck & Son, double bal-

sams, hollyhocks, nine var. of clematis, and other flowers. From A. Bowditch, a plant of *Cyrtoceras reflexus*. From J. F. Allen, a leaf of the *Victoria regia*, measuring 5½ feet in diameter, and in fine order. From Hovey & Co., splendid carnations and picotees; also fine hollyhocks. From Dr. C. F. Chaplin, fine seedling pinks and picotees. From J. Nugent, carnations, fine hollyhocks, bouquets, &c. Cut flowers and bouquets were also contributed by T. Page, P. Barnes, Winship & Co., C. Copeland, E. Chamberlain, J. Hovey, and others.

PREMIUMS AWARDED.

HOLLYHOCKS.—For the best 12 varieties, to P. Barnes, \$5.

For the second best, to Messrs. Hovey, \$4.

For the third best, to E. Chamberlain, \$3.

CARNATIONS and PICOTEES.—For the best 10 varieties, to Messrs. Hovey, \$5.

For the second best, to Dr. C. F. Chaplin, \$4.

For the third best, to J. Nugent, \$3.

FRUIT: From A. D. Williams & Son, White and Red Dutch currants. From A. D. Webber, 4 boxes gooseberries. From E. Cleaves, 2 boxes gooseberries, 2 boxes Napoleon Bigarreau cherries, extra fine; 2 boxes Knevet's Giant raspberries. From J. W. Foster, 2 boxes Knevet's Giant raspberries, fine. From T. Page, 3 boxes Franconia raspberries.

From Hovey & Co., cherries—Black Bigarreau, Savoy, fine; also a new Seedling cherry, good. From J. Bumstead, 4 boxes gooseberries. From A. McLellan, 16 dishes gooseberries, many of which varieties were very fine. From T. Draper, gooseberries. From J. Nugent, Black Hamburg grapes. From O. Johnson, 4 boxes Franconia raspberries. From C. Copeland, Red and White (fine) Dutch currants, gooseberries in variety. From J. Hyde & Sons, 2 boxes cherries, box Houghton's Seedling gooseberries. From J. Lovett, Gondouin currants, large and extra fine; Fastloff raspberries, extra fine.

July 23d.—Exhibited. **FLOWERS:** From J. Breck & Son, twenty varieties of superb double balsams, fine double hollyhocks, &c. From R. G. Bell, extra fine double hollyhocks. From D. T. Curtis, a plant of the pomegranate in flower.

From Messrs. Hovey, nine Seedling Japan lilies, dark and light, variously spotted, and some of them very fine; the following are the names:—Clio, Euterpe, Melpomene, Thalia, Terpsichore, Erato, Urania, Polyphimia, and Calliope. Cut flowers and bouquets, from E. M. Richards, J. Nugent, B. Harrington, J. Hovey, Winship & Co., P. Barnes, and others.

FRUIT: From F. Tudor, cherries for a name. From C. Guild, 2 varieties of Seedling cherries. From S. Butterfield, blackberries. From G. Wilson, Red Cherry and White Dutch currants, extra fine. From J. W. Foster, 2 boxes Cherry currants, extra fine. From J. Richardson, 8 boxes blackberries, 4 boxes plums. From A. McLellan, 2 dishes gooseberries.

From Hovey & Co., melons—Trentham Hall; 2 boxes Seedling cherries; Hardwick nectarines; Crawford's Early peaches, extra fine; Macready's Early White grapes. From B. Harrington, apples. From J. Nugent, 3

varieties of grapes. From G. Merriam, 12 boxes blackberries. From H. Vandine, Madeleine pears and plums. From H. Bradlee, gooseberries. From J. Lovett, R. Lion gooseberries, fine. Hyde & Son exhibited a Seedling cherry of good promise, to which he gives the name of Pierce's Seedling—of which the Committee will speak more fully in the annual report.

VEGETABLES: From A. D. Webber, Sweet corn, 16 ears. From J. Crosby, potatoes, superior; onions, cabbages, Drumhead; carrots, cucumbers, fine. From H. Bradlee, cucumbers, good. From B. Harrington, tomatoes.

HORTICULTURAL OPERATIONS

FOR AUGUST.

FRUIT DEPARTMENT.

THE refreshing rains of the latter part of July have greatly revived the suffering vegetation, and crops which seemed almost beyond recovery, now put on a livery of green almost as bright as the earliest days of summer. Fruit, which at one time appeared almost to have ceased growing, has swelled up rapidly, and will be a heavy crop.

Now is a good time for persons who intend to plant out trees the coming fall to look over the catalogues, and if nurseries or good amateur collections are near by, to examine the different sorts in fruit, more particularly of pears. A little attention to this now will save time when the proper season for planting arrives, and perhaps prevent that operation from being put off till spring.

Vineries, cold graperies, or other fruit houses, intended to be built this year, should be commenced immediately, and completed before cold weather. All repairs to flues, hot water pipes, or any alterations to be made, should be attended to at once, that the houses may be in readiness for use as soon as the season arrives.

GRAPE VINES in the greenhouse will now be fully ripe, unless some of the very late sorts, such as St. Peters, Syrian, &c., and the crop may be cut, as it is difficult to have a fine show of plants, and at the same time preserve the grapes; the exhalation of moisture from a house partially filled with plants, causes the berries to rot or decay. If there are no plants, by keeping the house dry, and lighting a fire in cool damp weather, they may be kept in fine condition till October. Vines in cold houses will now be coloring, and will require attention; air freely in good weather, both day and night; keep the house damp until the crop is pretty well colored, when the watering should be discontinued. Attend to the stopping of all laterals as soon as they become too crowded. Vines in the open air should be looked after; allow as much wood to grow as possible, without running together in a confused and matted state.

PEACH TREES in pots, which have had the fruit all gathered, should be more sparingly watered, in order to get the wood well ripened.

STRAWBERRY plantations may be made this month; prepare the ground at once, by a good deep trenching, or thorough spading, and manuring, for the plants, which may be set out any time after the 20th of the month. Old beds should be looked after, and all the young runners laid in, or as many as are wanted to make a good bed. Plants for forcing should be layered now into small pots, three in each.

RASPBERRY VINES will be benefited now by cutting away the old bearing wood, and give more room for the young shoots.

BLACKBERRIES should have the strong canes of this year tied to stakes, as they are liable to be broken off by high winds.

SUMMER PRUNING should still be attended to; some of the shoots stopped in June will require topping again, if growing too strong; on young trees they most always require it, but in older ones, bearing fruit, there is not much danger of their growing again.

MULCH AND WATER FRUIT TREES, if fine large and well grown specimens are wanted; thinning should also be attended to.

BUDDING plums and pears should be done during this month.

FLOWER DEPARTMENT.

Now is the time to look over thoroughly every collection and examine the stock, so that new propagations may be made of such as are wanting, and the old plants put in the best condition. Heaths and Camellias are two kinds which should be looked well after, and undergo repotting, at least all that require it. Roses, Verbenas, Heliotropes, &c., should be put in, and any kind of seeds sown for winter blooming.

The same remarks we made under our Fruit Department, in regard to repairing houses, will apply to such as are intended for plants. It is very inconvenient, as well as somewhat dangerous, to be repairing the flues and pipes, or glazing the sashes, when the plants are all housed. Now is the time to get in a complete stock of proper soils and composts, for fall and spring potting, if not already attended to.

PELARGONIUMS should now receive more than ordinary attention. Head the plants in at once, close to the root, say within four inches of a single stem, or within a few inches of the previous year's growth, if larger. See our article in another page. Keep the plants quite dry for two weeks, when they may be turned out of the pots, the balls reduced, and placed again in the same size, or such as are a little larger: use a rather light soil for the potting. Put in the cuttings now and they will make fine plants by October.

CHRYSANTHEMUMS will need care; shift all into the blooming pots, plunge in an open airy place—don't crowd them—and nip the tops off for the last time. Keep them well watered.

CAMELLIAS should have a general shift this month and as early as possible. All that are very much pot bound, should have a shift into the next size; those not crowded with roots, may be merely top dressed. Syringe every night, after the potting is done; keep them well watered at the root. Grafting and inarching should be done now.

ACHIMENES and **GLOXINIAS** should be looked after; such as require it may have a shift into larger pots. **Gloxinias** should be well watered.

HEATHS will need good care. Don't be afraid of the water. Give them a good watering overhead, with a fine rose, at least once a day, just before the sun leaves them. Hundreds of plants are lost for want of water.

EUPHORBIAS should now be kept in a growing condition, so as to make good shoots for flowering during winter.

VERBENAS for winter flowering, will be growing well, and the flower buds should be kept cut off; water occasionally with liquid manure.

ROSES in pots are now at rest; such as are intended to flower early, should now be repotted, headed in, and placed in a good situation. Cuttings put in now, root freely. August is the month to prepare plants for winter blooming.

MIGNONETTE, and other annuals, should be sown, if not already done.

JAPAN LILIES in pots should be well watered till they have done flowering, when they should have but a small quantity.

GESNERIAS should now be potted and forced into growth.

HELIOTROPES—old plants, intended to flower during the winter—should now be headed well in.

SCARLET GERANIUMS should be potted now, for early blooming in the fall.

MONTHLY CARNATIONS.—The young layers may now be planted out in a rich bed, in order to make fine roots for taking up in October.

FUCHSIAS intended for very large specimens, should have a shift into the next size pots.

CINERARIAS should now be divided and repotted.

CALCEOLARIAS should also be divided and repotted.

OXALIS BOWIEI and **HIRTA** should now be potted.

FLOWER GARDEN AND SHRUBBERY.

The shrubbery should be neatly kept; though few flowers are visible, no diminution of care should be allowed. Prune into shape any shrubs which require it: keep the grass or box edgings neatly cut, and roll and mow the lawns: keep the walks clear of all weeds, and roll after every good rain.

HOLLYHOCKS raised from seed, may be set out in the beds where they are to grow and flower.

WHITE LILIES may be taken up the last of the month.

DAHLIAS will require careful staking and pruning. Keep them well tied up, and see that the earth is loosened up every week or ten days.

CARNATIONS and **PICOTEEs** should be layered now.

PANSIES may be yet sown for spring blooming. New and choice kinds may be propagated by cuttings or layers.

PELOXES may be propagated by cuttings, when the sorts are very scarce.

HERBACEOUS PLANTS will now require to be put in good order, heading down such as have done blooming, and encouraging others to flower in the best order.

THE MAGAZINE OF HORTICULTURE.

SEPTEMBER, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *A few Hints on the Planting of Ornamental Trees.*

Now that the autumn is already here, and will soon claim our admiration by the varied and brilliant tints which she throws over woodland and forest, reminding all who possess town or country residences of the season of ornamenting their grounds, or the avenues in front of their dwellings, we may embrace this early opportunity to offer a few hints to young planters, and those who are inexperienced in such work, upon the proper mode of performing these operations, in order to guard them against the popular notions which prevail in this matter.

Any time about the season of planting in autumn, or in spring, but more particularly the latter season, for it is then that most individuals think of such work, hundreds of elms may be seen exposed for sale in the streets of any of our large country towns or cities. They are large, of course,—small ones would never make a tree, at least in the life time of such a fast people as ours,—for a man who should set out a tree less than twenty feet high and ever expect to sit under its shade, would hardly be considered sane. These elms are brought in loads from some distance in the interior,—perhaps twenty or more miles,—and as they must be sold cheap, it will not do to take much pains with them. They are hauled out of their native soil by the aid of chains and an ox team, with the loss of half of their roots. The next day they are

loaded up, and the third, carried to the best market. The day is hot, the sun scorching, the wind parching, but they are nothing but elm trees, and will receive no great damage. After a weary ride of twenty miles, the owner hauls up at some public place,—if in Boston, probably in front of the Exchange. Customers at first appear slowly; morning passes away, noon, and afternoon, and only half a dozen are sold out of a lot of twenty or more. The disappointed owner drives off, to reappear again the next day. But the trees, or the roots, look dry and must be refreshed. The nearest pump furnishes a supply of water, and a few pailsful give the moisture which they so much need. Another day they are taken to the same stand, and are finally disposed of at something less than the price of the first day, the purchaser thinking he has a decided bargain by means of a day's delay.

The trees are taken to the place where they are to be planted—for they are destined for a new street forty feet wide—and thrown down upon the sidewalk in the scorching heat. The seller makes his way home to haul out a fresh stock, and reappears at his old stand in a few days time.

But the purchaser had never seriously thought of buying a tree; and probably it would not have occurred to him to do so had he not seen them standing in front of his office, or passing his door. Of course, no preparation has been made for planting. The holes are not dug, no soil is provided, and when the trees are brought home, there they must lay till a planter is found, and everything made ready for them. This we have known to be deferred two or three days, the sun scorching and the wind drying the roots all the while. However, the work of planting is at last accomplished, but as good and careful men are scarce, a common laborer is procured, and the work done under the purchaser's eye.

But how is the work done? In this wise. First the tree is lopped of every branch to within fifteen or twenty inches or so of the main stem; scarcely anything left but a bare pole. The hole is dug out of a sandy, gravelly, or clayey street, just large enough to receive the roots, and filled with the same earth thrown out: no fresh loamy soil is provided, in which the young fibres may ramble and find the food they

so much need. Two large posts, four to six inches through, are set on two sides of each tree, and two large slats or boards on the other two sides stay it up, and prevent injury to the trunk. Such is the modern mode of planting trees in our streets, avenues, and public grounds.

Now, can any body wonder at the failure which attends such work as this? Could they expect ever to see a beautiful tree from such mutilated objects? The answer is easy. No reasonable man ever would. Poles they are, and such as may struggle through an operation like this will remain pollards forever. The real character of the tree is lost the moment its branches are sawed off; its grace, symmetry, regularity, beauty, or whatever may be its prevailing characteristic, is gone, and can no more be regained than a broken limb, badly reset, can ever preserve its natural roundness, proportion and grace.

Custom has so wedded individuals to this system that it is hard to depart from it. If a man of experience in his profession suggests that the operation of planting such large trees is a waste of time and expense, he is laughed at for his assurance. If a nurseryman suggests that smaller, healthy and well rooted ones will be twice as large at the end of five years, he is accused of self-interest, and a desire to palm off his own goods. So, between the two, the planter pursues his own course, going over the work again and again, replacing the dead trees, till, at last, dear-bought experience convinces him, if he had sought the proper advice at first, and confided the work to skilful hands, he would have been far better off.

This is no fancy sketch. We can appeal to dozens of our readers for its truth. We have seen hundreds of trees planted in this way, and, at the end of five years, not one in twenty was alive, and such were growing only miserable looking objects. Hundreds of dollars are paid yearly, in the neighborhood of Boston, for planting trees with no better results than we have stated. It has always surprised us how individuals will willingly pay from *one to two* dollars to plant and fence up a tree, and yet begrudge more than half that sum for the tree itself.

But the remedy for this evil is what our readers will like to know. This is simple enough. First, never purchase a tree on any consideration,—unless some rare kind one is desirous of possessing, which cannot be had otherwise,—which has not been cultivated. One might as well expect to find a savage at once take to the arts of civilized life, as a tree grow kindly and thriftily, torn from its native wilds, with its roots rambling in the soft soil of its accumulated and decaying foliage. Nature should be our guide in all operations of this kind. In its native earth a tree does not seek its food immediately around it; all are striving for this, and among so many there is but little, and they have to go far in search of it. Consequently their roots are large, woody, and with but few fibres; when taken up, they must be cut off, and then little is left for them to take up their food. The tree has, therefore, an entire life to live over. If there are roots enough for it to sustain itself, it will stand still till it makes new fibres, by which it may seek its food; and as the greater the tree, the longer is this process going on, so the later is it in commencing a vigorous growth. Thus a large tree is always longer in getting established than a small one.

If these reasons are not apparent to every reasonable mind, then we have studied this subject to little purpose. The only alternative then is to purchase cultivated trees,—that is, trees raised from seed, or procured when very young from the woods, and grown in good soil, yearly dug, hoed, manured and tilled. Then they are provided with an abundance of small fibrous roots, which adapt them to any situation to which they may be removed: the future conditions of growth being only governed by the quality of the soil and after-treatment. Thus the average growth of an elm from *seed*, in ten years, raised in this manner, is about *thirty* feet; while the average growth of a tree from the woods twelve feet high, when set out, is not more than *ten* feet in the same time. We have silver maples in our grounds set out eight years ago, and three years old when planted, which now measure nearly *four feet* in circumference at the ground.

All, therefore, who intend to plant trees should bear in

mind that three things are necessary to ensure perfect success, viz., the Selection of the Trees,—the Manner of Planting,—and their After-treatment. On these heads we have a few words of advice:—

1. **THE SELECTION OF THE TREES.**—Care should be taken in the selection of trees. As a general rule, they should not be more than twelve feet high, and from that down to eight. Of course, if great pains are taken and fine trees can be found, they may be removed of a much larger size, though the risk of success increases. But it should be recollected that the trees must be from cultivated ground. As recourse must be had generally to the nurseryman, it should also be borne in mind that trees growing in nursery rows are more or less injured every year that they stand there after ten or twelve feet high; they begin to lose their lower branches and their fine spreading form; soon spindle up, and, in fine, become almost unfit for removal to open, exposed situations. If trees have been allowed full room to extend their branches, then larger ones would succeed better; but they can rarely be found.

Different formed trees are required for different situations; but in all cases select a rather low-branched tree, even for a street, as one that has been denuded of its side branches, while young, always suffers by the act, and continues a top-heavy tree. It is easy to prune off all such as are in the way at the time of setting out, if the tree is for the street; and if not, they should never be removed. For a park or pleasure-ground the nearer they branch to the root the better. Do not allow the pruning mania to attack you, nor listen to those who would endeavor to persuade you that you have no taste in such matters as the choice of a handsome tree. Some people would not know a tree from a bush unless it was pruned up like a barber's pole.

2. **THE MANNER OF PLANTING.**—Every body knows, at least they think they do, how to plant an ornamental tree; consequently our advice may be gratuitous. Notwithstanding this, all may not know how to do the work in the best manner; and we write for the inexperienced, not the professional man.

A tree is not a post, and will require room not only for the roots which it already has, but for those which are to grow. If there is much planting to do, and a gardener can be had, he should be called in; but if only a few, and the proper man is not to be found, the inexperienced must proceed with the work. When streets are made, all the loam is generally carted off, and little is left except the hard gravel, sand or clay. Of course, a tree will not thrive much in either of these. When trees are to be planted in such places, a large hole, six feet in diameter, should be dug, and eighteen inches deep; and to fill in around the roots, at least two thirds as much good common earth should be procured as was thrown out, the other third being filled in at the surface from the best of that which was thrown out, unless clay. For want of such good soil, hundreds of trees die before the end of the second year. Fill in the earth so as to leave no crevices among the roots, and finish the operation by gently treading the surface.

3. **AFTER-TREATMENT.**—The trees may be good, and the planting well done, but their growth will be just in proportion to their subsequent care or neglect. Generally, they are left to take care of themselves. But this should not be. Every spring they should have the surface soil well dug, (unless in a paved street,) for a space of two or more feet all round the tree, and this space should be kept stirred two or three times during the first and second seasons at least,—if longer the better. They may also have some good manure dug in, if it is convenient. For the want of such care the surface of the ground becomes hard and almost impervious to water, or is choked up with grass and weeds which drink up all the moisture that should go to the roots of the trees. Take two trees, treat the one as we advise and let the other take care of itself; you will soon see which makes the largest tree. Our remarks, it will be seen, are mostly intended for trees in streets or avenues; as we shall suppose in pleasure-grounds the whole surface would be kept dug, till the trees had become established.

These brief hints only in part cover the important subject

of planting trees. They might be enlarged and extended to a greater length than our present article will admit. At another opportunity we shall refer to it again.

In conclusion, we must again repeat, in part, what we have already said. Make up your minds, all who intend to plant trees, to select such as have had cultivation,—call you them *nursery* trees or by any other name. Give no ear to the advice of those who would persuade you to the contrary, as you wish ever to see a tree in all the beauty the Creator designed it to possess, or hope to sit in its shade.

ART. II. *On the Construction of Highways with reference to pleasing effects in the Aspect of the Country.* By WILSON FLAGG.

It is remarkable that so little has been said in our horticultural papers, and other journals of taste, on the proper construction of roads, especially with reference to their effect on the aspect of the country. A great deal has been written concerning the planting of shade trees, but comparatively nothing on the proper width and direction of the streets in which they are planted. It seems to be generally understood, that if they enable the traveller to perform his journey in the safest and quickest possible time, all that is necessary has been accomplished. This, it is true, is the most desirable end; but it is a great error to suppose that pleasantness of prospect, variety of course, and those numerous circumstances which are valued by the man who is journeying for pleasure, are to be overlooked.

The general complaint with reference to streets is that they are too narrow. This is a fact particularly worthy of notice in a country where land is so cheap and so barren that a wide street would be the greatest recommendation of almost any locality. Houses are put up along these narrow streets, so near their bounds, that it becomes necessary to build a fence in front of them, to prevent the horses that are hitched

by the sidewalk from putting their heads through the windows. Hence, even in our smaller country villages, the inhabitants are excessively annoyed by dust from the streets, and suffer many of those inconveniences which are tolerated because they cannot be avoided in the city. The advocates for the present system would say that the first cost of building wider streets would be greater, and more expense would be annually required to keep them in repair. That the first cost would be greater is admitted; but the expense of repairing a wider street would not be increased, unless its greater width increased the amount of travelling.

The most of our cross-roads are laid out by speculators in real estate; and in many cases, in the centre of a village a greater width might be impracticable by too greatly reducing the size of the building lots. But whenever a wide street could be conveniently made, a speculator might obtain some advantage from it, by the consequent greater value of the lots adjoining it, compared with those adjoining a narrow one. There are but few men who would not pay more for a quarter of an acre of land, on a wide street, with a wide sidewalk between their enclosures and its dusty centre, than they would give for the same quantity of land in a narrow street, with a sidewalk only three or four feet wide.

What improvements ought then to be made in the construction of our highways? When a street is already laid out of the common width, and does not admit of being widened, the evil, in many situations, might be remedied, by locating the houses a proportional greater distance from its bounds. The dwellings, in this case, would be less exposed to the dust, and the shade trees would have more room to expand in all directions. How often do we see a row of noble trees divested of nearly all their branches on the inner side, because the house is too near them. Their symmetry is destroyed, and many inconveniences are suffered by the close proximity of the trees to the house. Shade trees ought to be far enough from one's windows to be seen in their full proportions by the occupants, that they may have the pleasure of viewing them, as well as of enjoying their shade.

Vines are for the walls of a house, and trees for the lawn at a little distance from it.

One or two rods added to the width of most of our streets, would be an unquestionable improvement. Let them be so wide that ten feet of sidewalk might be made between the fence and the shade trees. Ample space would then be left for the proprietor of the house to plant other trees in his own enclosures, without interfering with those in the street. The houses ought, in all practicable instances, to be placed several rods from the bounds, and this space should be open lawn unincumbered with shrubbery. The people then, as they are passing, have a good view of the house from beneath a canopy of shade afforded by the trees, instead of seeing them half covered, as they now are in many cases, by trees growing inconveniently against the windows, or unable to see the house at all through the tangled mass of shrubbery that crowds the front enclosures. The fact cannot be overlooked that the proper construction of our highways, and the decoration of our roadsides, are an important consideration in the improvement of the face of the country. They ought at least to be of sufficient width to permit a row of the largest trees on each side to spread their branches without interfering with those on the opposite side.

Our country is still new. Thousands of streets will be laid out annually for fifty years to come. The public ought, therefore, to realize the necessity of building them in such a manner as shall best contribute to the convenience of the inhabitants, to the pleasantness of travel, and to the beautiful display of scenery. The increase of expense consequent on such improvements would be hardly appreciable; and a saving might be made, in some instances, by omitting certain alterations which are not improvements. The authorities of a town, for example, often spend annually a great deal of money for the purpose of straightening certain curves and angles which contribute greatly to the beauty of the route. A road winds gracefully around a rocky eminence, overgrown with trees and shrubbery, and enamelled with flowers. To shorten the distance between two points, the town appro-

priates several hundred dollars, which are expended in leveling this beautiful eminence. The road is made shorter and straighter, but this agreeable curve, and the shade afforded by the trees and shrubs that nodded over the precipice, are destroyed. This is a very doubtful economy. Had the same money been spent for planting shade trees along this road, to protect men and horses from the heat of the sun, they would have preferred a little longer distance, with such advantages, to a shorter one without them. There seems but little wisdom in straightening an old road for the sake of saving distance, at an expense which it would be thought extravagant to lay out on the same length of new road. Yet this is frequently done by men who would refuse an appropriation for planting a row of beautiful trees.

In two preceding essays, I have treated of the beauties and advantages of trees. As embellishments of the prospect, and as sources of comfort to the traveller, too much cannot be said in their commendation. Had our predecessors valued them as they are valued by the present generation, we should now see them in perfection on each side of every old road. But the planting of trees has usually been performed by individuals at private expense. They have never been considered of sufficient importance to be planted at the expense of the public. Yet, when we consider with how much greater ease and comfort both men and beasts can travel in hot weather, when passing under the shade of trees, than when exposed to the rays of the sun, the providing of such protection cannot be thought of less importance than the smoothness and hardness of the road. Who would not prefer the labor of walking one mile and a half over a road well shaded by trees, when such shelter was needed, to that of walking one mile only over one that is unprotected? One travels not only with less fatigue, but his pleasure is increased by the greater pleasantness of the journey. A row of trees by the wayside, while it adds a great deal of beauty to the route, cannot, like a wood, interfere essentially with prospect. It ought, therefore, to be made a part of the bargain with the contractor, whenever a new road is to be built, that he shall plant trees on each side, along its whole extent.

The direction which a road should follow must generally be under the control of the commissioners. The nearest course between the two points which form its beginning and end, is usually marked out as the most convenient and proper. It would be idle to say to the road commissioners, that a road ought to be carried around a hill, or over a hill, or in any particular direction, for picturesque effects or the advantages of prospect. They must build the road on a principle that is strictly utilitarian. A commissioner who should cause one of fifteen miles to be made half a mile longer than convenience required, for the sake of commanding a pleasant view of certain scenery, would be likely to be voted out of office at the next election. Yet it might be proved, to the merest matter-of-fact calculator, that from sole regard to dollars and cents it would be better to lay out a road so as to secure all possible picturesque advantages, especially in the vicinity of a town, even at a little additional cost. If the scenes on the road are pleasing and striking, a strong temptation is offered to visitors to purchase land and build there. Hence the burden of supporting the road is proportionally lessened by the increased number of tax-payers. If you and your neighbors have sold land advantageously, on account of the agreeable prospects afforded by this new road, you are both proportionally better able to pay your highway taxes.

Our mere utilitarians have not sufficiently considered the fact that two roads may pursue a different course to and from the same places, and never lose sight of one another,—yet one may be a very delightful route, and the other an exceedingly unpleasant one. Suppose the former were five per cent. longer than the latter—who would not prefer the long and pleasant road, to the shorter one that is barren of prospect? Who settles on a turnpike road? Its straight, monotonous, dreary, and utilitarian aspect renders such a road repulsive; and the old crooked road is preferred by travellers, without reference to the saving of toll. A few houses are built there; but they bear no comparison in number to those built, during the same period, on the old winding roads. The turnpike roads were usually carried in nearly a straight course, over

hills and through valleys, cutting through the one and filling up the other.

It might be supposed that a road, that carries the traveller nearly to the summit of a hill, would afford him some wide and distant prospects not to be seen from one that winds round it. This may be true, and the winding course may still be preferable. The straight road, leading over the summit of the hill, gives you a reach of prospect in one direction longer than you could obtain on the other road. But the latter, by carrying you round the hill, say half way up from the bottom of the valley or plain, though it does not afford you so extensive a view in a single direction, gives you a view of nearly the whole circle of the horizon, during a semi-circular course. This is only one of the numerous circumstances of which the road-makers might avail themselves, if they wished to lay out a road with reference to pleasing effects. One of the advantages created by numerous turns and windings in a road consists in the agreeable surprises, occurring when, after winding round a wood or an eminence, you are struck with the sight of a charming scene, that was concealed by the intervening hill or wood. You cannot, in general, obtain these surprises in a straight road, unless when passing out of a wood into open country, because, whether ascending a hill or going over a level, you have constantly a partial sight of approaching views.

One of the most delightful routes in the vicinity of Boston is the road between Beverly and Gloucester. This is a crooked road that follows, to a certain extent, the inequalities of the coast. The beauties of this route are not wholly attributable to the sea views: they are caused, in a great measure, by the numerous windings around the cliffs and promontories, which are a peculiar feature of that coast, and are almost entirely covered with pine woods. Still, the sea views are unquestionably its principal charm. The traveller catches constant glimpses of the ocean, through the openings, and is frequently surprised with a sudden view of its broad expanse, when emerging from a valley between two wooded hills, or coming round an angle in the road formed by an

almost perpendicular cliff. These turns and windings in the road produce a constant change and variety of prospect, sometimes rude and wild, then smooth and cultivated: for the numerous country-seats, which have lately been erected on this shore, have added a new feature to its wild and romantic scenery. If one needs to be convinced of the superior advantages of prospect afforded by a road, whose course is determined by the irregularities of the surface, compared with those afforded by a straight road, that forces its way through all intervening obstacles, let him, after having travelled over this old road, ride over the same country on the Gloucester railroad. The views from the railroad are not in any respect remarkable. In many places the old road has been straightened, but in almost every instance the beauty of the route has been injured by such improvements.

A contemporary remarks that "a road ought always to be winding." It would savor a little of absurdity, however, to carry a road in a winding course over a level plain. For picturesque effects, it is only necessary that a road should pursue a straight or crooked course, as the inequalities of the surface might render it convenient or necessary.

Any rules for road-making, with reference to pleasing effects, must necessarily be general. By entering minutely into details, one might commit the error of making rules that could not be easily applied. If road-makers could only be convinced of the expediency of paying regard to the principles of taste, in laying out a road, as well as in laying out a garden, they would commit but few offences against these principles. There is but little disagreement among men as to what constitutes a pleasant route or an agreeable prospect: but many have never entertained a thought of taking prospect into consideration in laying out a road. I would simply recommend, whenever it is practicable and expedient, to carry our roads in such a direction as may afford the traveller the most pleasing view of the country.

In conclusion, whatever system of rules we may follow in the construction of new roads, let us carefully preserve our old picturesque, winding roads, with all their primitive eccen-

tricities. Let no modern vandalism, misnamed public economy, deprive the traveller of their pleasant advantages, by stopping up their beautiful curves, and building shorter cuts for economising distance. Who that is journeying for pleasure is not delighted with them, as they pass on through pleasant valleys, under the brows of hills, along the sides of green rivers, or the borders of silvery lakes, now half way up some gentle eminence that commands a view of a neighboring village, or winding round a hill and giving you a back view of the scenes you have just passed. They are no niggardly economists of time: but they seem as if purposely contrived to present to the eye of the traveller everything that shall make the country desirable to the sight. They are delightful with their old gray stone walls, half covered with sweet briars, viburnums and goldenrods, now leading you through fragrant woods, under the brink of precipices nodding with shrubbery, and seeming to emulate the capricious windings of the stream, in its blue course among the hills. How pleasant, when journeying, to arrive at a village by one of those gentle sweeps, that gives you several glimpses of its scenes, in different aspects, before your arrival! How much, indeed, would be done for us by nature, if we left the course of a road to be determined by natural boundaries, instead of employing square and compass to direct us to a straight route!

Beverly, Aug. 7, 1853.

We recommend Mr. Flagg's article to the especial attention of all our readers; particularly to those who are interested in land speculation, and to County Commissioners everywhere. Men of the least taste will admit the truth of his remarks. There is no one thing connected with the improvement of our rural districts which is of more importance than the laying out and construction of roads and avenues. And it is really surprising that in a country where land is so very cheap, that the beauty of so many towns has been forever marred by the narrow streets, and their ill-directed course. Why, in some towns we could name in Massachusetts, where the soil

is so poor that it is scarcely worth anything for cultivation, many of the streets are only thirty feet wide, and the houses stand within four feet of the boundary! When these streets were laid out by the speculators who purchased it, the land was not worth thirty dollars an acre; and the only difference in expense in making a road a *mile long*, fifty feet wide, instead of thirty, would be the paltry sum of *sixty* dollars! It was, however, considered as a useless waste of land to make them wider, to say nothing of its cost, forgetting, in their penny-wise and pound-foolish economy, that every hundred-feet front lot on a fifty-foot street would bring at least *one mill* a foot more than the same on a thirty-foot one,—which, if the lots were one hundred and fifty feet deep, would be a gain of \$500 in a street a mile long. Streets, therefore, need not be made wide with reference to effect or as a matter of taste alone, but on the score of economy.

The direction of roads is also, to a certain degree, a question of economy as well as of taste. Mr. Flagg has shown how ready the selectmen of a town are to spend hundreds of dollars to straighten a road, when one quarter the amount, paid in putting it in good order and planting it with ornamental trees, would render it more satisfactory to all, as well as preserve the picturesque effect which every old road possesses. . We hope Mr. Flagg's remarks on this point will be attentively read and treasured up.

ART. III. *Pomological Gossip.*

THE OHIO STRAWBERRIES.—In a late number we gave a brief account of the new strawberries raised in Cincinnati by Mr. Longworth's gardener, and recommended by the Horticultural Society of that city; one of them, in particular, as superior to all others. Our opinion was formed after a careful inspection of the plants growing in fine condition in our collection, and from repeated trials of the fruit upon our table.

So inferior were they to what had been expected, that we at first hesitated about publishing our opinion, thinking that perhaps another year they might possibly prove better ; but when we learned from our friends, who had visited many gardens around Boston, where these kinds were growing, and found them no better, we hesitated no longer, believing it our duty to give as early as possible our views of their quality for the guidance of those who place any confidence in our advice.

But we find some of our amateur friends in Western New York have a higher opinion of some of these strawberries than we do, and they think we cannot have the true varieties. This may be the case, yet it is remarkable that our neighbors should all be as badly off as ourselves. We had our plants of Messrs. Kelly & Co., of Cincinnati, who are, we believe, honest, careful and conscientious nurserymen, who would not send us the wrong kinds on any consideration. If, however, what is stated by Mr. R. G. Pardee, in the *Country Gentleman*, is true, there is no dependence to be placed on any nurseryman there. We all know how likely errors are to occur in the "best regulated" nurseries, but that such gross blunders as Mr. Pardee speaks of should be made with the Ohio strawberries, will induce every amateur to believe there is no honesty in nurserymen, or that the true varieties are not known themselves.

"It seems to me," Mr. Pardee says, "that we are driven to the conclusion that Mr. Hovey has obtained only the spurious kinds, inasmuch as it is well known some of the most respectable nurserymen in Cincinnati have sent out almost only spurious kinds, much to the chagrin of their friends at the East. One house at the East obtained only one plant genuine out of a dozen ; another, five ; but a much greater number none but spurious ones. Even a worthless pistillate one has been sent out by respectable nurserymen at Cincinnati for the celebrated staminate Longworth's Prolific, to the great disappointment of many." * * * * "The same may be said of Longworth's Prolific, only grosser errors have been committed with this variety. I am assured from the highest authority

at Cincinnati and elsewhere that the greater proportion—I should think at least *nineteen twentieths* [!]*—sent out for this kind are spurious.*”

Now will Mr. Pardee have us believe that such men as Mr. Ernst, Messrs. Kelly & Co., Messrs. Heaver, and others, have made the mistakes he speaks of? sending only *one* genuine plant out of a dozen, and in another case *nineteen twentieths* of the whole spurious? We should, rather than believe this, think the whole batch were misnomers, promiscuous seedlings, taken up to fill orders hap-hazard. In the whole history of the introduction of seedling strawberries in this country, in which dozens of new sorts have been sent out, we do not recollect of an error; and here, with four varieties, *one twelfth* in one case, *five twelfths* in another, *nineteen twentieths* in another, and in a “greater number of cases *none but spurious ones*” (we quote Mr. Pardee’s own words) “have been sent away”! With such evidence as this, it is useless to attempt any description or identification of the sorts, and very unwise to charge all cultivators who do not acknowledge their superiority with not having the true kinds. It is extremely doubtful what the true kinds are.

But we cannot believe that such gross mistakes have been made; Mr. Pardee must be in error. Our Longworth’s Prolific is the same as Mr. Pardee’s; it is not a pistillate. Schneike’s Pistillate is right; nobody could mistake it. McAvoy’s Superior and McAvoy’s No. 1 are similar, as we before stated. Possibly here may be an error; yet the description by the Pennsylvania Horticultural Society of the former agrees with ours; with one exception it could not be more correctly described; that exception is the color; their report calls it “deep brilliant crimson,” while we call it a “dark dingy red.” In confirmation of this, we see Mr. W. R. Prince, in a letter in Dr. Warder’s *Review*, while speaking of McAvoy’s Superior, says “its only deficiency as a market fruit being its *dark color.*”

We have seen no person who has cultivated McAvoy’s Superior (and we have seen gentlemen from various parts of

New York, Pennsylvania and Michigan) who agrees with Mr. Pardee in his opinion : they all pronounce it only an ordinary variety ; and we are inclined to believe he has overrated it, or that his plants are quite different from others cultivated under that name, and are perhaps some better old variety. This is the conclusion we are "driven" to after reading his remarks.

We are glad to say that the Chairman of the Fruit Committee of the Massachusetts Horticultural Society will make a report upon these strawberries in the course of the season.

NOTES ON STRAWBERRIES.—We quote the opinions of some of our Western New York friends, who have gone into the culture of the strawberry pretty extensively, in regard to the merits of some of the newer sorts :—

Crescent Seedling.—Mr. Pardee, who introduced it from New Orleans, says "it has in his garden—its first season of bearing North—proved a perfect failure. The plants are strong and vigorous ; the blossoms large and distinctly staminate. It has no appearance thus far this season of prolonging the season of strawberries north, as it has done fruiting."

Munroe Scarlet has again sustained its high reputation as a remarkably profuse bearer, fine size and flavor.

Genesee Seedling is growing in favor. It is a very handsome fruit, good flavor, vigorous, and usually a fine bearer for a staminate.

Walker's Seedling has borne handsomely ; fruit good size, very handsome form and color, and rich flavor. It promises to be an acquisition to our staminate.

Some additional information upon various strawberries will be found in our reports of Horticultural Societies, in another page.

CHERRY FESTIVAL AT CLEVELAND, OHIO.—In our last we alluded to the Cherry Festival which was held at Cleveland, by the invitation of F. R. Elliott and Prof. Kirtland. Since then a report of the meeting has appeared in Dr. Warder's *Review*, addressed to the Cincinnati Horticultural Society. It is signed by the chairman, Mr. Ernst, who had associated with him Messrs. Buchanan, Jackson, and Warder.

The Committee regretted the absence of the Eastern pomologists who were invited to attend, as such an opportunity to test the new sorts with the best old ones may not soon again occur.

The process of testing and obtaining the unbiased opinion of each gentleman was most unexceptionable. The fruit had been previously arranged in separate dishes on a table, with numbers, but without names, and each gentleman was provided with paper and pencil; when each sort was passed around the table, in order, each of the company taking part of the fruit from the dish, with its number, and making his own remarks on its merits. These remarks were afterwards read in the order taken down, after which was given the name corresponding to the number. This examination embraced many of the Professor's seedlings, as also some of the finer old sorts. A singular coincidence of taste and judgment was developed, which almost amounted to a unanimous opinion, on the merits of most of the sorts presented for inspection.

After this part of our pleasant duty was performed, the company resorted to the trees, to inspect their general appearance, bearing qualities, hardiness, the tendency of being attacked by insects, &c. Here, again, the inspection was most satisfactory, and with hardly an exception, showed their great bearing properties, hardiness, and freedom from the attacks of insects.

These comparisons were made in connection with such of the old sorts as the Black Tartarian, Elton, Knight's Early Black, Black Eagle, American Heart, Yellow Spanish, American Amber, Black Heart, Napoleon Bigarreau, Madison Bigarreau, Reine Hortense, Belle de Choisy, &c. The new cherries on which an expression of opinion was had, were—

Governor Wood.—Large, superior, and a great bearer.

Ohio Beauty.—Very handsome, good, and a great bearer.

Black Hawk.—Medium size, dark red, not fully ripe, but indicating a superior fruit, becoming a liver-colored black when ripe: excellent for market.

Delicate.—Very fine, light red, and a good bearer.

Mammoth.—Large, light red, tender, very fine, one of the best, but not so good a bearer.

Cleveland Bigarreau.—Large, light yellow, red cheek, fine flavor, and a great bearer.

Kirtland's Mary.—Large, light red, not fully ripe, but a superior fruit, and is a great bearer.

Osceola.—Good size, black, very pleasant, handsome on the tree, and a good bearer.

Red Jacket.—Medium size, light red, good, and a great bearer.

Doctor.—Pleasant and fine, though may not prove so desirable as some of the other sorts.

Elliott's Favorite.—Very handsome on the tree, a great bearer, and very hardy.

Jockosott.—Large, black, tender, pleasant, and a great bearer.

Rockport Bigarreau.—Large, very fine, and a great bearer.

Many other seedlings, not yet named, were examined, some of which will undoubtedly prove first rate, and assume a position among the finest of this delicious fruit, though it was preferred to let them remain on trial a few years longer ere bringing them to public notice.

The opinion, after full examination, was freely expressed, that in making a selection of five or ten sorts, if the selection must be confined to the old, or new varieties, the latter would be chosen without hesitation.

The origin of these new cherries is not an impulse of a few years, but the work and thought of the greater part of the Doctor's active life, his attention having been drawn to it at an early period, under peculiar circumstances. He has persevered, without faltering, until the result of his unremitting labor justly places him along side of such men as Van Mons, in the department of originating fruits.

In conclusion, we may be permitted, without laying ourselves open to the charge of *egotism*, to congratulate the public that they are no longer obliged to go beyond the boundaries of our own beautiful Ohio for superior varieties of this fine fruit.

THE FALL EXHIBITIONS OF 1853.—We anticipate much gratification from the September exhibitions of this year. With the exception of apples, fruit is unusually abundant, and has the promise now of being fully as fine as in any previous year. Especially is this the fact with regard to the pear; to which so much attention has recently been given; so many orchards and gardens planted with the choicest kinds. Many new varieties have come into bearing, affording not only the pleasure of inspecting their general appearance, but of testing their quality.

In the vicinity of Boston, quite a number of new kinds are in fruit. Beurré Clairgeau is bearing finely in several collections. Beurré Bachelier, Wredow, Kingessing, Beau Present d'Artois, Striped Duchess of Angouleme, Beurré Kennes, Collins, Beurré Nantais, Beurré de Mons, Laure de Glymes, Beurré Duhaume, and many more, are fruiting; and though in most instances the specimens are few, yet we trust we may see them all at the annual exhibition of the Massachusetts Horticultural Society. The late rains have greatly benefited the trees and invigorated the growth of the fruit.

ART. IV. *Descriptions and Engravings of Select Varieties of Cherries.* By the EDITOR.

WE continue our descriptions of cherries from our last volume, (XVIII, p. 356.)

19. HOVEY.

This new, large, and superior cherry, (*fig. 27,*) has been noticed several times in our Pomological Gossip, and has now been exhibited for the fifth year before the Massachusetts Horticultural Society, and received the especial commendation of the Fruit Committee. It is one of the largest cherries yet produced, being more than an inch diameter. It is also one of the most beautiful varieties, having a rich amber colored skin, deeply shaded with bright red; the flesh is

firm, without being hard like many of the *Bigarreaus*, quite melting, rich, and delicious.

The original tree of this cherry was selected, with about a dozen others, from a bed of seedlings, in 1839, which gave promise, from their very large and beautiful foliage, of producing superior fruit, if anything can be judged from the leaves. Van Mons, by constant observation, became so familiar with the foliage of his seedling pears, that he could generally form a tolerably correct opinion of the character of the fruit from the foliage and wood. The production of this cherry shows that such characteristics are some guide to the excellence of the fruit. The foliage of our seedling, on young trees in particular, is very remarkable, being larger and more beautiful than almost any variety we are acquainted with.

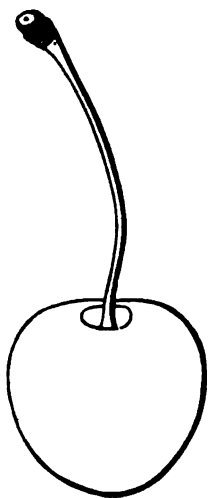


Fig. 27. The Hoovey Cherry.

It first commenced bearing in 1848, when the tree only bore a dozen or two cherries; but every year since then it has borne more abundantly, and this season the crop was very large, and presented a beautiful appearance. The cherries hang in clusters of from twenty-five to thirty, and their large size, brilliant color, and glossy skin, appear in striking contrast with most other sorts. What adds to its merit is its lateness, coming in after nearly all the sweet cherries are gone, about the same time as the *Sweet Montmorency*.

The tree is a vigorous grower, making strong annual shoots, and forming a somewhat pyramidal head.

Size, large, over an inch in diameter, and an inch long: *Form*, obtuse heart shaped, tapering very little, with a shallow suture on one side, ending in a large depressed point at the apex: *Skin*, clear rich amber in the shade, beautifully mottled with brilliant red in the sun, often nearly covering the fruit: *Stem*, short, about an inch long, rather stout, nearly straight, and inserted in a deep, round cavity: *Flesh*, pale

amber, rather firm, but tender, brisk, rich and delicious, slightly adhering to the stone: *Stone*, small, oval. Ripe from the middle of July to beginning of August.

20. **DUCHESS DE PALLUA.**

This new cherry (*fig. 28,*) we recently noticed. It fruited with the Hon. M. P. Wilder, who exhibited some fine specimens before the Massachusetts Horticultural Society, the present year, for the first time. It is, we believe, a French variety, imported by him. It is a peculiarly sweet cherry, and from the appearance of the branches, with the fruit upon them, which he also exhibited, it is a most abundant bearer.

The color is a very dark purple, almost black; of medium size, with very tender, deep purple flesh. It comes in just after the early sorts, and promises to be a decided acquisition.

Size, medium, about three-quarters of an inch long, and the same in diameter: *Form*, oblong heart-shaped, convex on one side, compressed or flattened on the other, with a very indistinct suture, rounded at the apex: *Skin*, very dark, blackish purple, opaque: *Stem*, rather long, about one and three-quarter inches in length, slender, and inserted in a large, open, and moderately deep cavity:

Flesh, very dark, purplish red, tender, vinous, rich and good; separating tolerable freely from the stone; *Stone*, oblong ovate, small, very smooth. Ripe from the middle to the end of June.

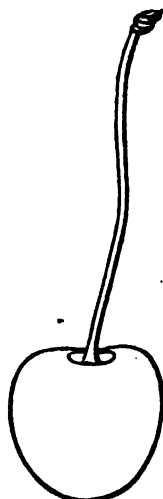


Fig. 28. Duchess de Pallua.

21. **COE'S TRANSPARENT.** *Horticulturist.*

This new cherry, (*fig. 29,*) was introduced to the public, with a high reputation, certificated by many of the raiser's friends in his immediate vicinity. It was raised by Mr. Coe of Middletown, Connecticut, and first disseminated about six or eight years ago. It has not yet, therefore, become

very generally cultivated, and few have had an opportunity to see the fruit. It proves, however, a very fine variety, exceedingly handsome, with a clear transparent skin, distinctly mottled on the sunny side.

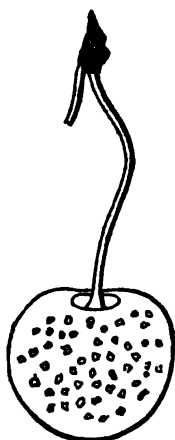


Fig. 29. *Coe's Transparent.*

The tree is a moderate grower, and forms a somewhat spreading head; annual growth stout.

Size, medium, three quarters of an inch long, and nearly seven-eighths of an inch in diameter: *Form*, round, little like the Downer in shape, very regular, with scarcely a perceptible suture, and a slight depression at the apex: *Skin*, clear pale amber, over-spread with a beautiful cornelian red, of a clear shining waxy appearance, beautifully mottled with yellow on the sunny side: *Stem*, rather short, not quite one and a half inches long, slender, and set in a small, little depressed cavity: *Flesh*, clear pale amber, very tender, melting, sprightly, rich and sweet, separating freely from the stone: *Stone*, small, round. Ripe the middle to the end of June.

ART. V. *Variety in Flower Gardens.* From the Magazine of Botany.

THE following excellent article expresses, in the main, our views in relation to planting flower gardens. We are as great admirers of groups and masses of individual flowers as any lover of a garden can well be; but yet we believe we can appreciate the importance of propriety and fitness in planting a flower garden, as well as in laying it out, or adapting it to the style or character of the house.

The truth is that the grouping mode of planting is only adapted to particular places, and in nine instances out of ten, variety should be sought rather than gaudy display. Nothing

can be more out of place than a small border, wholly taken up with masses of verbenas, scarlet geraniums, portulacas, salvias, &c., &c., one mass following the other, the eye taking in the whole at one view. Whereas, if planted with the almost endless variety which the gardener has within his means, hours might be spent in admiring the beauties of each, while the whole would form a kind of mosaic work, full of gratification and delight.

The truth is, that the grouping and massing system should only be attempted in large places, and as episodes to the garden, rather than the main garden itself. There it becomes a feature of dazzling brilliancy, highly pleasing from its immediate striking effect. But to introduce it everywhere, and without reference to situation, size, form, &c., of the garden, is injudicious, and fails to afford the pleasure which will ever be derived from variety and contrast. We commend the article to every lover of a fine flower garden.—ED.

Variety is, after all, the great idol which the majority of mankind worship; and for variety's sake it is the common fashion to make almost any sacrifice. Now, without attempting to decide whether or no this eagerness to bow before a shrine identified with inconstancy, be generally praiseworthy, as it is generally prevalent, it may surely be assumed, that at least, as far as regards flower-garden arrangements, there is little or no folly in becoming one of variety's devotees.

If this be true, the fact militates more or less against the practice of planting large masses of unbroken colors to make up a flower-garden. The end thus attained is no doubt a gaudy display; but, paradoxical as it may appear, the question may be raised, whether, in such cases, gaudiness is not obtained at a sacrifice of effect. Doubtless there is, and ever will be, more than one opinion upon such a point; but at any rate, it may not be assumed as unquestionable that a gaudy display and elegance of effect are synonymous. The fact appears to be, that here we have a contest—not an uncommon one—whether quantity or quality should prevail. The great glare of color in the one case, as the more at-

tractive, is commonly set down as the more perfect result ; a decision which, upon the face of it, appears questionable.

But it does not therefore follow that colors should not be massed. To be effective, color must be decided or obvipus, and to be decided or obvious, it must not be too much broken or isolated. It seems, therefore, on the whole, that the effort to be made is rather to contract than to enlarge the groups of flower-garden plants, in order that a given space may show a contrast or variety of color, instead of an unbroken monotonous hue. Size is, however, always relative, and what is large in one place would be small in another, so that no absolute rule as regards the size of masses can be drawn in respect to the distribution of colors.

It is some years since the circle was first recommended as the most desirable figure for flower-beds, and it is now, as it was then, true, that the more perfectly angles in flower-beds, and especially acute angles, are avoided, the better ; that is to say, if the bed is to represent a mass or any formal combination of colors ; for there is a tendency towards rotundity in the growth of all plants, which renders it next to impossible that angular outlines—especially sharply angular ones—should be fairly filled out with flowers.

The circular or rotund style of flower-beds certainly offers one of the readiest means of promoting variety in flower-gardens planted on the grouping or massing system. Instead of being entirely filled with one kind of plant, such beds may be very readily planted either in zones, or in divergent rays, and from the simplicity of their form, these arrangements of the plants, and consequently of the colors, are obvious, and, being obvious, they are effective. This can never be the case with intricately fitted angles, which, though pretty enough on paper, or even when cut out on the ground, lose all their distinctness when the plants come to grow up in them.

Whether or no circular beds, or beds of rotund character, become more generally adopted, it seems to be desirable that an attempt should be made to impart greater variety to modern flower-gardens, by the more frequent adoption of what

may be called compound planting, or, in other words, by forming the larger groups or beds in a flower-garden of several colors in distinct masses, instead of employing one color only, these several colors being so disposed as to harmonise or contrast, as the case may be, both with those in the same group, and those in the groups adjoining. The individual masses, or sub-groups themselves, should be distinctly recognisable both in respect to size and outline. Probably almost every garden might in this way be made to contain three or four times as many kinds of plants, as if otherwise filled; and this change might be made without any sacrifice of the general effect, but would be rather productive of improvement. Touching this very bearing of the subject, it has been pointedly asked, "Is a red cloak more elegant than an embroidered shawl?"

This or some such principles brought into operation would tend greatly to supply flower-gardens with what they stand much in need of—a greater variety of vegetable forms. As it is, too much deference is paid to mere color. For example, because the *Verbena* combines, with a habit and other characteristics admirably adapting it for grouping, considerable variety of colors, mostly brilliant and striking, it is by no means clear, if mere color is to continue the chief object of attraction, that we may not yet live to see the time, when the term "flower-garden," will be almost an equivalent to a "garden of *Verbenas*." A garden of *Verbenas*, however, would have nothing like the interest that attaches to a garden of varieties.

ART. VI. *Floricultural and Botanical Notices of New and Beautiful Plants, figured in Foreign Periodicals; with descriptions of those introduced to, or originated in, American Collections.*

NEW PLANTS IN EUROPEAN COLLECTIONS.—Quite a number of new plants are noticed in our Foreign Gardening Period-

icals. Some of them have already been obtained by our cultivators, but the greater part remain yet to be introduced. We copy the following account of such as we think will prove acquisitions :—

PHLOXES.—The following are fine seedlings, between decussata and pyramidalis.

Madame Corbay.—Milk white, with violet eye.

Fanny Adam.—Milk white, and spots of rose around the tube.

Madame Millerat.—White, tinged with pink, and a fine eye of vivid carmine. It is of the pyramidal group; very superb.

Madame Veillard.—White, with large rose centre, in large panicles; very elegant.

Monsieur Damage.—Rosy violet, with a large crimson eye, in large panicles; very superb.

Madame Bassville.—White, large, suffused with lavender, and a very striking, rich, cherry colored eye.

AMERICAN SEEDLING PHLOXES.—The attention of the cultivators around Boston, has been recently directed to the production of new varieties. Messrs. Breck & Son have some new and very fine ones, principally of the decussata group; two of these are

Standard of Perfection.—A fine striped one, similar to Princess Marianne; distinct.

Mrs. Webster.—Blush or pale pink, with a white eye; very elegant.

Messrs. Hovey & Co. have also two superb seedlings of the same group, viz. :—

Gem.—Fine lilac rose, with a large, distinct, light eye; very beautiful; the individual flowers are large, finely shaped, and the truss compact, without being crowded.

Florence.—Milk white, with a violet eye; the petals are rather narrow, but it is a superb variety.

LILIUM GIGANTEUM, which we described in a previous number, (p. 80,) stood out at Messrs. Lucombe & Prince's nursery in Devonshire, Eng., where the thermometer fell to 15° above zero.

BERBERIS DARWINII.—This fine evergreen shrub, from China, has proved quite hardy in every part of Great Britain, during the last winter. It forms a dense bush, and is covered with its lovely yellow blossoms.

NEW LILACINAS.—This very pretty tribe of plants seems fair to become as numerous in its varieties as the verbena. We already cultivate eight or ten kinds, and we notice the following additional new sorts :—

L. Marquis de Saperta.—Of dwarfish habit, with the flowers in large heads, of a beautiful orange yellow, which changes to a rosy salmon, giving a pretty contrast ; a superb variety.

L. alba grandiflora.—Similar in its habit to the last. The flowers are produced in large heads, of a pure white, with a yellow eye ; very pretty.

L. lutea superba.—The flowers are in large heads, of large size, and of a citron yellow.

L. flavicoma.—Flowers of a rich clear yellow, rising very full at the crown of the corymbose head. All these are said to be valuable acquisitions.

NEW VARIEGATED SHRUBS.—M. Oudin & Son, of Lisieux, France, offer for sale, two new and beautiful variegated shrubs, which are described as great acquisitions. They are offered for sale at high prices. They are as follows :—

Magnolia grandiflora variegata.—This has leaves of the size of *M. grandiflora*, with each leaf edged and striped with creamy white.

Syringa Josikæa variegata.—The pretty and rather novel lilac, called *Josikæa*, is tolerably well known, though not very common. This is a variety of it, with handsome foliage, striped with green and white.

NEW GLOXINIAS.—Great attention is now directed to the production of seedling gloxinias. They are easily raised from seed, and with proper care in fertilization, no doubt some superb sorts may be obtained. We have one or two of remarkable beauty, superior to any of a dozen kinds we received from France. No plants afford more satisfaction in the

summer months, when they fill up the spare room in the green house, and add greatly to its attractions.

SEEDLING PICOTEES AND PINKS.—A box of very pretty Seedling German Picotees and Pinks has been sent to us, by Messrs. Kennedy & Co., of the Bay Wood Nursery and Gardens, Pittsburgh, Pa. The collection embraced twenty-two varieties named; some of them very large and showy. The German picotees we do not fancy so much as the English; they are more brilliant, but do not possess the smooth edged petals and delicate tints of the latter. These seedlings, however, of Messrs. Kennedy & Co., are fine, and will form a fine collection till the choice sorts, which come up to the standard of English florists, are introduced.

212. *SKI'MMIA JAPONICA* Zucc. *JAPAN SKIMMIA*. (*Aurantiacæ*.) Japan.

A half-hardy (or hardy) evergreen shrub; growing 3 to 4 feet high; with white flowers; appearing in spring; increased by layers; grown in peat, loam and sand. Bot. Mag., 1833, pl. 4719.

A new and elegant evergreen shrub, a native of the mountains of Japan, about Nangasaki, and extensively cultivated by the Chinese as well as Japanese, on account of the delicious scent of the flowers, compared to that of *Daphne odora*. It was introduced by Mr. Fortune to Messrs. Standish & Nobles, where it has grown freely, and borne the cold of two winters unharmed. It flourishes well in a cool greenhouse, where the plant was grown from which the specimen was cut. It begins to flower when the plant is very small. "The evergreen and shining leaves," observes Siebold, "the clusters of runners and graceful flowers, which all the summits of the branches produce, from the beginning of spring, their perfume, and at the close of autumn, the beautiful scarlet fruits, justify the rank which this maintains as a decorative plant." The foliage oblong, acuminate, coriaceous, entire, somewhat resembles the *Daphne*; the flowers appear in terminal panicles, and are succeeded by clusters of bright berries, like the alder. If it should prove hardy in our climate, of which there is but little doubt, it will be a most valuable addition to our evergreen shrubs.—(*Bot. Mag.*, June.)

213. *EPISCIA MELITTIFOLIA* Mart. MELITTIS-LEAVED
EPISCIA. (*Gesneraceæ.*) West Indies.

A stove plant; growing one foot high; with crimson flowers; appearing in spring; increased by cuttings; grown in leaf mould, peat and sand. *Bot. Mag.*, 1852, pl. 4720.

A really handsome Gesneraceous plant, with rather coarse, nettle-like leaves, but with brilliant crimson flowers, which appear in panicles from the base of the leaves. It has now flowered for the first time in Europe, having been received at Kew from Dominica. It grows about a foot high, and its dark colored flowers render it a conspicuous and showy plant. (*Bot. Mag.*, June.)

214. *RHODODE'NDRON GLAU'CUM* Hook. GLAUCUS-LEAVED
RHODODENDRON. (*Ericææ.*) Sikkim Himalaya.

A halfhardy or hardy shrub; growing two feet high; with pink flowers; appearing in spring; increased by layers; grown in heath soil. *Bot. Mag.*, 1853, pl. 4721.

An extremely distinct species, reared from seeds sent home from the Sikkim Himalaya by Dr. Hooker, in the autumn of 1850. There it inhabits rocky depressed ridges, at elevations of from 10,000 to 12,000 feet above the level of the sea. It is quite hardy in England, though the flowers were cut from a plant in the greenhouse. It grows two feet high, with rough reddish brown stems, and small lanceolate acute leaves. The flowers appear in small umbels, five to eight in each, and are of a full rich rose, glandular and scaly. It flowers very early from the seed, and if hardy in our climate will be a distinct and splendid species. (*Bot. Mag.*, June.)

215. *GLOXINIA WILSONI*. MR. WILSON'S GLOXINIA. (*Gesneraceæ.*) Garden Hybrid.

This is the name given to a magnificent plant raised by Charles Wilson, Esq., near Liverpool. It was obtained from seed of albo sanguinea, impregnated with some other sort. It is white, with a deep carmine spot in the throat. The flowers are of "magnificent size," being nearly six inches long. It is of a vigorous habit, and a free bloomer. (*Floricultural Cabinet* for July.)

216. EUCALYPTUS COCCI'FERÆ Hook. COCCUS BEARING GUM-TREE. (Myrtaceæ.) Van Dieman's Land.

A half-hardy shrub or tree; growing twenty feet high; with yellowish white flowers; appearing in spring; increased by seeds and cuttings; grown in light loamy rich soil. *Bot. Mag.*, 1853, pl. 4637.

A showy myrtaceous low tree, which stands the winter in the south of England, but requires the greenhouse elsewhere. In our climate it would grow out doors finely south of Washington, and would form a most ornamental tree. The foliage is everywhere clothed with a glaucous bloom, and the flowers appear in terminal branches. (*Bot. Mag.*, March.)

217. DIPLADE'NIA FLAVA Hook. YELLOW-FLOWERED DIPLADENIA. (Apocynææ.) New Grenada.

A climbing stove plant; with yellow flowers; appearing in May; increased by cuttings; grown in loam, leaf mould and sand. *Bot. Mag.*, 1853, pl. 4722.

A very beautiful species of this fine family, which now embraces a great contrast of colors. It was introduced in 1845, and flowered in the Royal Gardens. "The flowers are nearly equal in size, and the same in color as our yellow flowered species of *Allamanda*." It is cultivated in the same way as the lovely *D. crassinoda*. (*Bot. Mag.*, March.)

218. SANDERSONIA AURANTI'ACA Hook. GOLDEN-FLOWERED SANDERSONIA. (Liliaceæ.) South Africa.

A greenhouse bulb; growing about eighteen inches high; with orange colored flowers; appearing in autumn; increased by offsets; grown in light rich soil. *Bot. Mag.*, 1853, pl. 4716.

A singular and very handsome plant, found at Natal, South Africa, by John Sanderson, Esq., in 1851, who sent drawings and a description of the flower to Dr. Hooker. It has not yet flowered in England. It has sessile, lanceolate leaves, striated, with parallel veins. Flowers axillary, solitary, bell shaped, pendulous, and of a deep orange color. Dr. Hooker says he "must leave others to decide whether this plant should be placed among the *Liliaceæ* or *Smilacææ*, or whether the two families are really distinct. It seems, in habit, almost to unite the *Fritillary* Group, which it mostly resembles in general appearance, with the *Convallareæ* section in *Smilacææ*, with which it agrees in the union of the sepals into one piece."

It will probably succeed in our climate as a summer bulb, planted out in the spring with the Gladioli, and blooming in autumn. If it does, it will be a great acquisition. Its orange-colored, bell-shaped blossoms, quite large for the leaves and stem, would be charming objects in the flower border. (*Bot. Mag.*, May.)

219. *IMPATIENS HOOKERIANA* Arnot. HOOKER'S BALSAM.
(Balsaminaceæ.) Ceylon.

A stove plant; growing two to three feet high; with white and carmine flowers; appearing in summer; increased by seeds; grown in light rich soil. *Bot. Mag.*, 1853, pl. 4704.

This is the most beautiful of all the Balsams which have been introduced. The foliage is large, ovate, acuminate, serrated, and the flowers, which are very large, and have a long slender spurr, are white, beautifully marked with deep blood-colored veins on the lower petals. It was raised from seeds received from Ceylon, and flowered last year at Kew. If it will succeed with us in the open air as an annual or bedded out, as we have no doubt it will, it must be a splendid addition to our garden plants. (*Bot. Mag.*, March.)

220. *PUYA CHILENSIS* Molina. CHILIAN PUYA. (*Bromeliaceæ.*) Chili.

A stove plant; growing four feet high; with greenish yellow flowers; appearing in summer; increased by seeds; grown in light rich soil. *Bot. Mag.*, 1853, pl. 4715.

"One of the most striking of the Bromeliaceous plants," attaining the height of four feet, and throwing up a compound spike of flowers upon the column-like perfectly straight peduncle of remarkable size. The leaves are furnished with spines directed towards the apex, and the general appearance of the plant is something like a *Yucca*. It thrives in a cool stove at Kew, and would probably in our climate do well in the greenhouse. (*Bot. Mag.*, May.)

MISCELLANEOUS INTELLIGENCE.

ART. I. Domestic Notices.

HORTICULTURAL EXHIBITIONS IN SEPTEMBER AND OCTOBER.—This month and the next will be full of interest to the Horticulturist, the Florist,
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and the Pomologist. Societies are springing up in all parts of the country, and have now become so numerous that quite a number hold their exhibitions on the same days. This is to be regretted; but in a country so extensive, and with so many such institutions, it is almost impossible to arrange them to accommodate the members of each. The following are the principal exhibitions:—

Massachusetts Horticultural Society.—The Twenty-fifth Annual Exhibition will take place in Boston on Wednesday, Thursday and Friday, the 21st, 22d, and 23d of September.

New York Horticultural Society.—The Second Annual Exhibition will be held in New York, at Niblo's Garden, on Tuesday, Wednesday and Thursday, the 20th, 21st and 22d of September.

Pennsylvania Horticultural Society.—The Twenty-fifth Exhibition of the Pennsylvania Horticultural Society will be held in the Philadelphia Museum, on Wednesday, Thursday and Friday, the 21st, 22d and 23d of September.

Albany and Rensselaer Horticultural Society.—The Annual Exhibition will be held in Albany, on Wednesday and Thursday, the 7th and 8th of September.

New York State Agricultural Society.—The Annual Fair will be held at Saratoga, on the 20th, 21st, 22d and 23d of September.

Genesee Valley Horticultural Society.—The Annual Exhibition will be held at Rochester, on Friday and Saturday, the 16th and 17th of September.

Cincinnati Horticultural Society.—The Annual Exhibition will be held in Cincinnati, on Thursday, Friday and Saturday, the 22d, 23d, and 24th of September.

Worcester County Horticultural Society.—The Annual Exhibition will be held in Worcester, on Wednesday, Thursday and Friday, the 21st, 22d and 23d of September.

American Institute.—The Horticultural and Floricultural Exhibition of this Institution will be held at Castle Garden, New York, commencing on Tuesday, October 4th, next.

North Western Fruit Growers Convention.—The meeting will be held at Chicago, on Tuesday, Wednesday, Thursday and Friday, the 4th, 5th, 6th and 7th of October next.

The Salem, Lowell, Springfield, and other County Societies will also hold exhibitions, but we have not been favored with any account of the time.

CULTIVATION OF *CYTODERUS REFLEXUS*.—Mr. Hovey: Would you be kind enough to let me know, through your most valuable magazine of Horticulture, what I shall do with my *Cytodermis reflexus*, which is in bloom, and so is multiflora. Neither show much disposition to grow: multiflora is doing rather better than reflexa, though both are treated alike, and growing side by side. A yellow, meagre-looking plant is reflexa. It has not shown any sign of growth in six months, with the exception of one truss of flowers. They are potted in equal quantities of rich loam and leaf mould, with some white sand, all well blended together with the hands—not sifted. The pots are six-inch, prepared with a good layer of broken pots at the

bottom, over which I place some broken moss. I find it beneficial in the growing of other plants, the roots seem to work pleasantly in it, and it prevents the earth from filtering through the drainage. The plants are in a nice greenhouse, shaded by a light awning from the direct rays of the sun. Your opinion shall be looked for, after which I expect to see *Cyrtoceras* very soon flourish, or he will find his way out doors.—*Yours, &c., C. A Subscriber. N. Y., June, 1853.*

The treatment of *Cyrtoceras*, by "A Subscriber," has been all right, with one exception: he has cultivated it in the greenhouse, when it should have been in the hothouse. It is a perfect salamander; and unless in a damp hot temperature of 60 to 70° during winter, it will get so chilled it will scarcely recover all summer. We have it now in fine bloom in the hothouse, where the temperature is 90 to 95° in the day time. Let our correspondent give it heat enough, and with the same treatment he has detailed it will flower abundantly.—*Ed.*

ART. II. Societies.

NEW YORK HORTICULTURAL.

The Committee of Arrangements for the next Annual Exhibition have made a strong appeal to all who are interested in Horticulture to assist them in getting up a display worthy of the country and of New York. We copy the concluding paragraph of their circular:—

"This is a subject which eminently concerns the public taste and the public good, and all should feel some interest in it, no matter where their home, or what their pursuits in life may be. It is thus that we appeal to you for your active aid and coöperation. If you have no fruits, plants, or flowers to send yourself, perhaps your neighbor has, and a word from you may induce him to send. It is conceived that our List of Awards is very liberal, and worthy of attention; but in order to afford every reasonable inducement to exhibitors, the undersigned will pay freight on all articles sent from a distance, when requested to do so. Communications should be addressed to the Chairman of the Committee, Bible House, Astor Place, New York.—*PETER B. MEAD, Chairman of the Committee of Arrangements.*"

ALBANY AND RENSSELAER HORTICULTURAL.

The first exhibition of this society for the season was held June 22d. The show of fruit was not so large as on several former occasions, as strawberries were nearly gone; but the flowers and plants were very superior.

FRUIT: Strawberries—Joel Rathbone, of Kenwood, exhibited specimens of Hovey's Seedling, Boston Pine, Iowa, Crimson Cone, Black Hautbois, Burr's New Pine, and Ross Phoenix. C. P. Williams exhibited Hovey's Seedling, Virginia Scarlet, and Burr's Pine. James Wilson exhibited a new seedling strawberry. E. Buttercase, Hovey's Seedling. Mrs. J. T. Van Namee, Iowa. E. Corning, Jr., Crimson Cone.

Cherries—There were shown by Joel Rathbone, Black Tartarian, White Heart, White Bigarreau, Black Heart, Early Duke, Griotte, and White

Tartarian. By James Wilson, Werder's Early Black, Knight's Early Black, Elton, and May Duke.

Grapes—E. Corning, Jr., exhibited two bunches Red Chasselas, very fine; and specimens of Zinfindal, Golden Chasselas, and Chasselas de Bar Sur Aube, in pots.

PREMIUMS: Strawberries—For the best and most extensive collection, to Col. Rathbone, of Kenwood, eight varieties, \$3.

For the second best and most extensive collection, to Col. Rathbone, three varieties, \$2.

For the best and finest flavored variety, to C. P. Williams, for Burr's New Pine, \$2.

For second best and finest flavored variety, to C. P. Williams, for Hovey's Seedling, \$1.

Mr. Wilson exhibited a staminate seedling variety of large size, very prolific habit, hardy, and finely formed—of dark crimson color, and of very good flavor.

The grapes exhibited by Mr. Corning deserves special commendation, as the clusters were large, and the berries finely colored. The committee award for them a diploma.

The cherries exhibited were very fine, but as premiums were not offered for them at this exhibition, none could be awarded.

FLOWERS, PLANTS, &c.—The display of plants, particularly of pelargoniums, was very fine. Messrs. E. Corning, Jr., J. Rathbone, L. Menand, V. P. Douw and E. Buttercase being the competitors.

Among the stove and greenhouse plants in E. Corning's collection we noticed good examples of *Euphórbia splendens*, *Stephanòtus floribundus*, on a globe trellis; *Adámia versicolor*, a plant deserving of more extensive cultivation; a nice dwarf plant of *Justicia carnea*, with its flesh-colored flowers in five spikes; *Pavetta caffra*, a good specimen of a rare plant; *Clerodéndron fallax*, *Erica Bowieana*, and *Gloxinias candida*, *speciosa*, *maxima alba*, and *coccinea*, very fine. A fine large plant of *Crinum amabile*, and *Opúntia braziliensis*, was shown from the same place. In J. Rathbone's plants were a fine specimen of *Gardènia flórida*, which scented the room with its delightful fragrance; *Vinca alba*, *Kalosánthes versicolor*, *Hoya carnosa*, a plant in good condition; a good *Erica Bowieana*, and several fine *Gloxinias*. From the same place, also, came some well grown *Pelargoniums*, particularly *Life Guardsman*, *Hebe*, *Aspasia* and *Elegans*, the flowers of which were very true to their character. Some fine scarlet varieties also came from the same grower. In L. Menand's plants were *Néríum album*, *Dracæna variegata*, a very fine variegated stove plant; *Vinca alba*, and a beautiful little orange bush with seventeen perfect fruit on. V. P. Douw's *pelargoniums* were good grown plants, and with proper care, in another season will make fine plants. Scarlet varieties were also fine and well flowered; a fine plant of *Verónica Andersónii* was also shown from the same place.

PREMIUMS: Best ten plants in pots—for *Crinum amabile*, *Erica Bowieana*, *Physianthus albus*, *Erythrina crista-galli*, *Pavetta caffra*, *Medinilla erythro-*

philla, *Stephanotus floribundus*, *Euphorbia splendens*, to E. Corning, Jr., (Morris Walsh, gardener,) diploma and \$3.

Best six plants in pots—for *Erica Boweiana*, *Hoya carnea*, *Russelia juncea*, *Vinca alba*, *Kalmia latifolia*, *Gardenia florida*, to Joel Rathbone, (Wm. Gray, gardener,) diploma and \$2.

Best three plants in pots—for *Erica cinerea*, *Hoya bella*, *Erica Boweiana*, to L. Menand, diploma and \$1.

Pelargoniums, best six varieties—for Life Guardsman, Clouded Perfection, *Aspasia*, *Rolla*, *Clifton Scarlet* and *Hebe*, to J. Rathbone, \$2.

Pelargoniums, best three varieties—for *Hebe*, *Princess Alice* and *Elegans*, to L. Menand, \$1.

The bouquets and cut flowers proved a conspicuous feature of the exhibition, and liberal premiums were awarded.—Jos. WARREN, Secretary.

GENEVA HORTICULTURAL.

Geneva held a very creditable exhibition on the 23d of June. Great quantities of bouquets and fine flowers were exhibited by Mrs. Gideon Lee, Mrs. T. D. Burrall, Mrs. W. N. & L. Clark, Mrs. Bradford, Mrs. Scott, Mrs. Suydam, Capt. Dakin, and many others. The roses were unusually fine. Messrs. Thorp, Smith, Hanchett & Co., of Syracuse, Dell & Collins, from Waterloo, Messrs. Maxwells and Messrs. Smiths, of Geneva, contributed fine quantities of flowers and fruits.

The display of strawberries was one of the finest made in Western New York this year. Over one hundred dishes, comprising more than fifty varieties, were placed upon the tables. Mr. Suydam was awarded the first premium for the greatest variety, and Capt. Dakin and Mr. Messer for the finest specimens. The premium for the best quart was awarded to W. F. Cook, for the *Boston Pine*. Mr. R. G. Pardee displayed a large number of varieties from his old garden in Palmyra, which were for exhibition merely. The exhibition was highly satisfactory to all.—(*Horticulturist*.)

GENESEE VALLEY HORTICULTURAL.

The annual June exhibition of this society was held in Rochester, on the 21st of June, and was one of the best, and most numerously attended, the society ever held. The weather for some time previous had been dry and warm, which prevented so good a display as would otherwise have been made. The strawberries were much smaller than usual.

FAURT.—Mr. Pardee, of Geneva, exhibited 18 varieties of strawberries; among the number, McAvoy's Superior, Walker's Seedling, Moyamensing, Crescent Seedling, Munroe Scarlet, and Genesee; all these were fine, and came up to expectation, except the Crescent, which was quite indifferent. A dish of fine Burr's Pine and Hovey's Seedling was shown by T. A. Newton, for C. D. Southworth, of Penfield. H. Hooker & Co. presented 8 or 10 varieties. Frost & Co., Hovey's Seedling and Genesee. Ellwanger & Barry, 30 varieties, including most of the new sorts: Burr's Mammoth and Genesee looked the most attractive.

Among the cherries, none came quite up to Early Purple Guigne for high flavor; and for its mild and agreeable quality and beautiful appearance,

Belle d'Orleans was unsurpassed. It is found to be about as early as the Early Guigne and May Bigarreau. Coe's Transparent, about as early as the Doctor, possesses a high flavor, and beautiful appearance. These were the best among the earliest, the season being late, none of medium period of ripening were exhibited.

FLOWERS.—The large recent introduction of new roses, was well shown by the number of very large collections which occupied the tables, from W. King, A. Frost & Co., J. A. Eastman, J. J. Thomas, Ellwanger & Barry, S. Moulson, and others, some of them containing several hundred sorts. A beautiful and rich pyramid of roses, dahlias, and some rare flowers of greenhouse plants, was presented from the garden of John Greig, of Canandaigua. Among the greenhouse plants, we were particularly pleased with those exhibited by J. Salter, gardener to J. W. Bissel, on account of the excellent training they had received, bringing them into compact, round-headed, densely-flowered specimens, instead of the tall, long-legged plants so generally seen; two scarlet geraniums, in rustic vases, and some of the verbenas, were especially commendable in this particular.

PENNSYLVANIA HORTICULTURAL.

The Fruit Committee respectfully Report, that since the June Meeting of the Society, the following specimens of fruit have been submitted to their examination:—

From Mr. Tage, of Burlington—Fine specimens of the *Moyamensing Strawberry*. A description of this valuable variety was given in the last ad interim report.

From the Rev. S. C. Brincklé, Wilmington, Del.—Specimens of three varieties of cherries:—

1. *Büttner's Yellow*.—Rather large, heart-shaped, of a waxen yellow color; stem from an inch to an inch and a half long, slender, inserted in an open superficial cavity; stone small; flesh firm, yellowish white; flavor sweet and fine; quality "very good."

2. *Late Bigarreau*.—A seedling of Professor Kirtland; large; obtuse heart-shaped; bright crimson delicately mottled; stem an inch and a half long, inserted in a wide, open cavity; stone medium; flesh firm, crisp, yellowish white; flavor pleasant; quality "very good."

3. *Büttner's Morello*.—Of medium size; roundish; deep crimson; stem an inch and a quarter long, slender, inserted in a deep, moderately wide cavity; flavor acid; quality scarcely "good."

From Dr. E. W. Carpenter, Lancaster—Magnificent specimens of four varieties of cherries:—

1. *Napoleon Bigarreau*.—Very large, some of them weighing eighty-four grains, Troy. A branch fourteen inches long contained seventy cherries, and weighed eleven ounces, of which the wood and foliage constituted two ounces. This is a very productive variety, and of "very good" quality.

2. *Grafton*.—Another very productive variety, of "very good" quality. Some of the specimens were even larger than those of the Napoleon Bigarreau, and weighed ninety-two grains, Troy. A branch seven inches

long, containing forty-four cherries, weighed seven ounces, including the wood and foliage, which weighed one ounce.

3. *English Morello*.—Remarkably fine, nearly three inches in circumference; quality "best" for culinary purposes.

4. *Early and Late*.—In size, form, color and quality, very similar to the preceding.

From Mr. Casper Hiller, Lancaster County—Very handsome specimens of four varieties of cherries:—

1. *Conestoga*.—This fine variety originated in Conestoga Township, Lancaster County, Pennsylvania. Fruit very large; obtuse heart-shaped, slightly indented at the apex; dark purple; stem from an inch and three quarters to two and a quarter long, slender, inserted in an open cavity; flesh purplish, firm; flavor sugary and very pleasant; quality "best."

2. *Black Tartarian*.—Fine specimens of this delicious variety.

3. *Graffion*.—Known also as the Amber of Coxe, the Yellow Spanish, and the Bigarreau. Fair specimens.

4. *White Bigarreau*.—Common in our market. Sometimes confounded with the Graffion, from which it differs in being more regularly heart-shaped and of a lighter color.

From Alexander Parker, of this city—Four varieties of plums:—

1. *Seedling Plum*.—Beautiful specimens, resembling the Mirabolan. Above medium, round, scarlet; stem half an inch long, slender; flesh greenish yellow, juicy; flavor ordinary; quality "good" for the season; period of maturity last of June and beginning of July.

Another Seedling.—A few days later than the preceding, but in other respects very similar to it.

3. *Parker's Mammoth*.—Very large, nearly six inches in circumference. It closely resembles the Washington, with which it is probably identical.

4. *Bingham Plum*.—Beautiful specimens. Large; truncated oval; greenish yellow, occasionally with delicate carmine dots on the exposed side; suture on one side extending from the base to the apex; stem three-quarters of an inch long, by one-twelfth thick, inserted in a deep, narrow depression; stone adherent; flesh yellowish, juicy; flavor pleasant; quality "very good."

From Isaac B. Baxter—The *Musch Musch Apricot*, and a plum imported from France as the *Royale Hative*. The latter is not true to name, as the color of the *Royale Hative* is purple. The specimens exhibited by Mr. Baxter were large; oval; of a green color; unadherent; quality "very good."

From Alan W. Corson, Montgomery County—A box of pears grown on the premises of Mr. Schlater. Size medium; long pyriform; yellowish green, and on the exposed side sometimes a fawn-colored cheek, with a few red dots; stem an inch long by one-eighth thick, inserted occasionally somewhat obliquely and without depression; calyx set in a superficial basin; seed small, black, often abortive; flesh yellowish white, rather granular, moderately juicy; pleasant flavor; quality "good." The variety is probably the English Jargonelle, the Epargne of the French.

From Thomas Hancock, Burlington, N. J.—Specimens of eight varieties of pears. Edwards' Meadow, quality indifferent. Dearborn's Seedling, "good." Bloodgood, "very good." Manning's Elizabeth, "very good."

Rostiezer, "best." Tainall's Harvest, scarcely good. Beurré d'Amanlis, fine specimens. Limon, "very good."

From Robert Buist—Twelve varieties of pears and two of apples. The specimens were beautiful, but not sufficiently mature to test their quality. They comprised the following kinds: Pears—Andrews, Bartlett, Belle de Bruxelles, Beurré Goubault, Capiaumont, Collins, Crassane, Doyenné Defais, Flemish Beauty, Julienne, and two unknown. Apples—Irish Codlin and Rambour d'Ete.

From Samuel Ott—Two varieties of plums and three of pears:—

1. *A Seedling Plum*, raised by John Cope, of Southwark. Large; an inch and three-quarters long by one and a half broad; long oval; dark purple; stem three-fourths of an inch long, slender; flesh not very juicy, free from the stone; flavor acid; quality "good" for culinary purposes.

2. *A cling variety of the Red Magnum Bonum*; very large; oval; purple; stem five-eighths of an inch long by one-twelfth thick; quality "good."

3. *The Julienne Pear*.—Fine specimens.

4. *The Tyson*.—Handsome specimens; quality "best."

5. *The Ott*.—This is the fifth consecutive year that we have had an opportunity of testing the quality of this fine Pennsylvania fruit, which we regard as the most delicious of all summer pears.

SPECIAL REPORT OF THE ENTOMOLOGICAL COMMITTEE. *August 15th, 1853.* To the President of the Penna. Hort. Society:—

The committee on entomology respectfully report, that their attention has recently been directed to several insects, of which specimens, in various stages of transformation, were received from members of the society.

1. A species of coccus, or scale insect, of the apple tree; a noxious bark louse, which injures the tree by sucking the juices from the branches to which it is permanently attached. They are of a brown color, about one-tenth of an inch in length, of an oblong oval form, and gregarious in their habits. Where they are crowded together in great numbers, on the limbs and branches, as is often the case, the growth of the tree is materially impaired, and its life endangered. Dr. T. W. Harris, in his able "Report on the Insects of Massachusetts injurious to vegetation," recommends, as the best remedy for its destruction, "a wash made of two parts of soft soap and eight of water, with which is to be mixed lime enough to bring it to the consistence of thick whitewash." This application is to be put on with a brush, to the limbs affected, "in the early part of June, when the insects are young and tender." We have also used, with entire success, in the winter, the whale oil soap, applied with a hard brush.

2. *Carpocapsa Pomonella*, or apple moth. This is the insect which disfigures so many of our apples, and causes such numbers of them to fall prematurely from the tree. Mr. Ewens, a member of our society, in passing through his orchard, pulled up a sod of grass and laid it in the crotch of an apple tree. Subsequently, he found it to be full of cocoons, which proved to belong to the insect in question. In this case, the apple worms, as is usual with them, had left the fruit, after they had attained their full larval growth, (some of them whilst it was on the tree, and others after it had fallen,) to take refuge in the crevices of the trunk. But finding a con-

venient shelter in the tuft of grass, they availed themselves of it. Dr. Harris has recommended old cloth to be used for this purpose; and it is evident that if these facts be taken advantage of when the infected apples begin to drop prematurely, the summer and autumn broods may be materially diminished. It is of most importance to attend to the latter brood, which furnishes the individuals that live through the winter, and thus preserve the species for another year.

3. *Aphis* (*Pemphigus*) *Stamineus*. This name is proposed for a large species of *aphis* which forms follicles on the leaves of the silver-leaved maple, (*acer eriocarpum*.) The specimens were sent to us by our ex-president, Caleb Cope, Esq. This curious *aphis* appears to be a new species. Dr. Fitch, in the descriptions of the New York State Cabinet, mentions the European *aphis aceris* as occurring in New York, and may have this woolly species in view. But the description of the foreign one does not mention the remarkable filaments which approximate the insect to certain tropical forms. Both sexes are covered with white down, and have a bunch of white filaments posteriorly, some of which are three-fourths of an inch long, a character in which this species surpasses the *Eriosoma* of the apple tree. *Male*—black, feet long, slender, and rufous; tarsi bi-articulate; wings slightly deflexed, translucent, pale ferruginous at the base; submarginal nervure conspicuous, black, and ending in a long stigma; disc with four simple nervures; posterior wings with three nervures; mesonotum polished, with a deep Y-shaped impression; abdomen without tubes; promusci obsolete; antennæ 6—articulate, the first two short, the 3d long, and the 4th, 5th, 6th gradually lengthening; length of the body $1\frac{1}{2}$ lines, or to the end of the wings $2\frac{1}{2}$. *Female* and pupa—apterous, dark reddish brown, feet paler; promusci twice as long as the head, thickened near the apex; length $1\frac{1}{2}$ lines.

PITTSBURGH HORTICULTURAL.

The Board of Managers of the Pittsburgh Horticultural Society met in their rooms, in Burke's Buildings, yesterday morning, H. Woods in the chair, and H. L. Ringwalt acting as secretary.

The committee appointed to examine the various varieties of our strawberries reported as follows:—

Your committee, having examined the several kinds of strawberries grown in the vicinity of Pittsburgh, and having been aided by the experience of the growers themselves, as well as a close examination of the plants on the ground, have prepared the following report, to wit:—

From the great productiveness, largeness and uniformity of size of the Buist's Prize Strawberry, we consider it the best and most profitable for market gardeners, and would class it first on our list.

The Victoria, which is now called the British Queen, is an earlier ripening fruit than the above. A few of the first pickings, having a coxcomb shape, are very large. Add to this its exquisite flavor, which makes up for the shortness of the crop, and it is entitled to be second best on our list.

We class Hovey's Seedling No. 3 on our list. It is a very fine fruit,

and cannot be called much inferior, if any, to No. 1 and 2, being very prolific, and well deserves its place among the collection of either an amateur or market gardener.

The three varieties alluded to were grown on the grounds of Anson Bidwell, the rows being the average of the crop, and very carefully measured they yielded as follows:—

Buist's Prize, the rows being two feet apart and 114 feet in length, making 456 feet of ground, 107 baskets, or at the rate of 319 bushels per acre.

Hovey's Seedling, two and a half feet apart in rows of the same length, 133 baskets; the rows being wider apart, the yield per acre about the same as Buist's Prize.

British Queen, the rows two feet apart, same length, 80 baskets, or 230 bushels per acre. The British Queen ripened five days earlier than Buist's and three days earlier than Hovey's.

In conclusion, your committee would state that they are fully satisfied that the plants and fruit sold in this market by the name of Wilmot's Superb, are the identical Buist's Prize Strawberry.

The committee would also respectfully report the several varieties, viz., McAvoy's Superior, Schneike's Pistillate, Burr's New Pine, Bickton Pine, and others, are in the hands of proficient cultivators, but another year will be required to test their value.

The following communication, on the Destruction of the Curculio, from Mr. Uplike, was read:—

MR. CHAIRMAN,—By request of some gentlemen of this society, I am induced to repeat the substance of an article communicated to the agricultural society of this county last season. It was in relation to the preservation of plums against the attacks of the curculio. The same process has been tried again this season in my garden, making the fourth year of perfect and entire success. I have brought with me, for the inspection of the society, a basket of plums, some of them scarred with the perfect crescent-shaped bite of the insect, which resulted in no injury to the fruit. There is no doubt but that the caustic property of the preparation will destroy the recently deposited egg, whenever it comes in contact with it. Being well satisfied that the remedy is a highly valuable, if not an infallible one, I trust one of the objects of the society will be promoted by bringing it definitely to the notice of its members; that if they think well of it, the precise mixture and mode of application may through them more generally reach the public. The mixture is composed of one peck of dry, well slacked lime, and one pound of flor sulphur; mix thoroughly, and dust it over the entire tree early in the morning, when the dew is heavy; this should be repeated for five or six times, or until every part of the tree is well coated; with a two-gallon tin canister, punched with quarter-inch holes, and handle of proper length, a tree may be well dusted in two minutes. The best time to begin using the preparation is as soon as the bloom begins to fall. Some of the lime will of course fall to the ground around the tree: it is recommended to dig this lightly under the surface.

Mr. Uplike said that the mixture had been applied to his trees this year,

after half of the plums had been stung by the curculio. His gardener had waited two or three days after the proper time, because but little dew had fallen, and the mixture would not adhere well to the leaves in consequence. This he should not have done, but he wished to be economical. It was fortunate, however, that he did so, or else the trees would have broken down under the load of their fruit, he having already gathered eight pecks from one tree, this season.

Mr. Updike proceeded to exhibit specimens of fine yellow plums which had been stung, but restored by the application of lime and sulphur, and they appeared to us just as good as those which had not been touched by the curculio, the only difference being a small crescent-shape mark on the end, where they had been stung, which did not penetrate inside.

Mr. U. proceeded to state that he was indebted to his friend, John Murdock, Jr., for the name of the variety, which was the old Yellow Hudson. The process was so simple, and cheap, as to bring it within the reach of all; and he might further observe, as a proof of the value of the remedy, that he had a number of fine plum trees so near the house that he could not apply it conveniently; the consequence was that those trees had not produced a single plum, all having been stung and fallen off.

He had been informed that an application of camphor would drive off the curculio, but had tried it and failed. He took a roll of camphor and hung it between two plums which grew close together; both were stung and dropped off. He should have added to his communication a disclaimer as to its originality, having adopted it from some suggestions which he had seen, but he claimed, at least, the merit of persistence; and on trees where formerly he had enough of plums to tell to what variety they belonged, he now had bushels.

Mr. McKnight wished to know whether he had tried it on peaches, which the curculio was now attacking. Mr. Martin, one of our most successful fruit growers, had told him that his peaches had been stung, and he would not have one in every ten.

Mr. Updike had not tried it, but had no doubt that the curculios had been driven from his plum trees to Mr. Martin's garden, they living near each other.

On motion of Mr. W. H. Williams, the report was accepted and adopted, and ordered to be printed.

A motion was made to extend the competition at the annual exhibition to all the horticulturists in Western Pennsylvania.

Amended to read—to all horticulturists, no matter where they reside, and amendment adopted.

The monthly display of fruits, flowers and vegetables was a very creditable one indeed, and premiums were awarded.

MARYLAND HORTICULTURAL.

The monthly meeting of this society was held in Baltimore, on the 12th of May. Good collections of flowers and plants were shown by Miss Tiffany, John Hopkins, Esq., J. Feast, E. Kurtz, S. Feast & Sons, Dr.

Edmonson, W. Saunders, and others. Premiums were awarded for pelargoniums, calceolarias, verbenas, &c., &c.

The June show was held on the 9th of that month, when premiums were awarded for greenhouse plants, fuchsias, &c.

Best twelve greenhouse plants, to John Feast, for *Torènia asiatica*, *Stephanòtus floribùndus*, *Allamànda nerifolia*, *Técoma jasminoides*, *Pimelea decussata*, &c.

Second best twelve, to S. Feast & Sons, for *Achimines grandiflora*, *Ixora coccinea*, *Plumbago rosea*, *gloxinias*, *Victoria regina*, and *Fifyana*, pelargoniums, &c.

Best twelve fuchsias, to Dr. Edmonson, for Prince Arthur, Elize Meiliez, *Macrophylla*, *Flora's Diadem*, *Speciosa*, Sir J. Fastolf, *Globosa alba*, Fair Rosamond, Madame Sontag, Lord of the Isles, Prince of Orange, and Voltigeur.

Best twelve fuchsias, (gardeners' premium,) to S. Feast & Sons.

Premiums were also awarded for calceolarias, roses, &c., &c.

STRAWBERRIES.—Best distinct variety, one quart each, to Dr. Edmonson, with McAvoy's Superior, Hovey's Seedling, and two of his own seedlings, viz.,—Haarlem Orange and Charles's Favorite. Second best, to S. Feast & Sons, for Hovey's Seedling, Boston Pine, Black Prince, and Keens' Seedling. Best one quart of any variety, to Dr. Edmonson, for his *Marylandica*. Second best, to O. Kemp, for Hovey's Seedling. Third best, to J. Feast, for Hovey's Seedling. Some cherries were also exhibited.—(*Phil. Florist*.)

ART. III. Massachusetts Horticultural Society.

Saturday, July 30.—An adjourned meeting of the Society was held to-day,—the President in the chair.

Mr. J. Underwood of Boston was admitted a member.

Adjourned three weeks to August 20.

Exhibited.—**FLOWERS:** From J. Breck & Son, extra fine Double Balsams, Double Hollyhocks, Delphiniums, Phloxes, Rudbeckias, Verbenas, &c. Cut flowers, bouquets, &c., from P. Barnes, J. Nugent, J. Hovey, Miss Russell, Miss Mary Kenrick, E. M. Richards, B Harrington, and Geo. E. White.

FRUITS: From A. Dexter, three boxes blackberries. From A. D. Williams, apples—Early Harvest, Williams; pears—Madeleine. From E. Brown, pears—Madeleine; apples—Red Astrachan. From E. M. Richards, blackberries, fine. From J. Richardson, 10 boxes plums—Dubois Early; four boxes blackberries. From S. Driver, pears—for a name. From A. W. Stetson, apples—Sops of Wine. From C. E. Grant, four boxes blackberries. From B. Harrington, a large basket of fruits in variety; also, two branches from a pear tree, showing profuse bearing.

From Hovey & Co., nectarines—Hardwick and Murray; peaches—

Crawford's Early and Late, and a Seedling, all fine; pears—Doyenné d'Ete. From J. Nugent, five dishes B. Hamburg grapes. From G. Merriam, 16 boxes blackberries, fine. From G. Leland, Madeleine pears—fine. From J. Lovett, three boxes blackberries, extra fine; Victoria currants, fine. From J. B. Moore, White Dutch currants. From H. Vandine, three boxes apricots; three dishes plums. From C. B. Prentiss, two varieties Black currants. From J. Hovey, apples—Williams, Early Harvest, fine.

PREMIUMS AWARDED FOR FRUIT.

GRAPES.—For the best specimens, before July 1, to Mrs. F. B. Durfee, \$10.

For the second best, to M. H. Simpson, \$7.

PEACHES.—For the best, before July 1, to J. F. Allen, \$6.

For the second best, to M. H. Simpson, \$4.

STRAWBERRIES.—For the best specimens, to J. B. Moore, for Hovey's Seedling, \$6.

For the second best, to M. H. Simpson, for Hovey's Seedling, \$4.

For the third best, to M. H. Simpson, for Durfee's Seedling, \$3.

To I. Fay, a gratuity of \$3, for his Seedling Jenny Lind.

VEGETABLES.—From B. Harrington, potatoes. From P. Barnes, cucumbers. From J. Crosby, potatoes, onions, tomatoes, cucumbers, excellent. From J. Nugent, tomatoes, fine. From H. Bradlee, Gordon cucumbers. From T. McCarty, Sweet Corn. From J. B. Moore, tomatoes and beets, fine; Darling's Early Sweet Corn.

August 6.—*Exhibited.* FLOWERS: From J. F. Allen, the segments of a decaying flower of the Victoria Regia, or Royal Water Lily, showing the arrangement of the petals, stamens, pistil and seed vessels; also a leaf of the Lily about six feet in diameter. The flower was exhibited on the afternoon and evening of the 4th instant, to a crowd of admiring visitors. A detailed description, and habits of this floral wonder, will at some future time be reported.

From Alvin Adams, (of Adams & Co.'s Express,) remarkable specimens of cereal grains brought by him from California, viz.: oats, 9 feet high; wheat, 5 and 6 feet; barley, 7 feet; also bark and foliage from the mammoth Arborvitæ Tree, said to be about 300 feet high, with proportional diameter.

Fine Double Balsams, from J. Breck & Co. Cut flowers and bouquets were also exhibited, from Winship & Co., P. Barnes, J. Nugent, A. Bowditch, Miss Russell, J. Hovey, Mary M. Richards, and others.

FRUITS: From Hovey & Co., extra fine Early Crawford peaches. From E. Brown, Red Astrachan apples, and Bloodgood, Jargonelle, and Jargonelle of the French pears. From W. Richardson, Williams apples, superior. From J. W. Foster, Early Harvest apples and Seedling Gooseberries, extra. From B. Harrington, Sops of Wine and Williams apples, fine. Jargonelle pears, Early Crawford peaches, and Orleans plums, fine. From J. Hovey, Williams and Early Harvest apples, very fine. From A. D. Wil-

liams, Williams apples, and Jargonelle pears, fine. From I. Fay, Jargonelle pears and nectarines. From A. Wales, Black Hamburg, Victoria, and Muscat of Alexandria grapes. From J. F. Allen, Bouker grapes, very fine ; also, Late Admirable and Early Violet peaches, superior. From J. Richardson, blackberries, fine, also nectarines. Blackberries, from C. E. Grant, fine. Blackberries, from G. Merriam and J. Lovett, both superior. From E. M. Richards, Christiana melons. From N. Carruth, extra fine peaches. Apricots, from H. Vandine, G. L. Baxter, and Messrs. Burr. Plums and apricots, from Wm. Page.

HORTICULTURAL OPERATIONS

FOR SEPTEMBER.

FRUIT DEPARTMENT.

To make up for the dry weather of June and July, we are now surfeited with rain. Up to the present time, (August 20) about eight inches of rain has fallen in the vicinity of Boston, and wherever the drought was experienced, which was pretty general throughout New England, refreshing rains have fallen and relieved the suffering crops.

FRUIT TREES in a bearing state will now be swelling up their fruit very rapidly ; it is the most growing month ; it having been proved that nearly every fall or winter fruit fully doubles its weight in September. Cultivators, therefore, who wish to have fine specimens, must give them their attention. The most important thing is to thin out the fruit,—and by thinning out we don't mean picking off three or four knurly, wormy fruits,—but take off from one quarter to one half, according to the crop, always, of course, taking the wormy ones *first*, then the ill shaped ones, and last, finer looking fruits, if the tree is overloaded ; a peck of fine large pears is worth a bushel of small ones. Next, water freely, if the weather proves dry, using liquid manure occasionally. Continue to pinch in any shoots which show a tendency to grow too much ; this does not often happen on old bearing trees, but on young ones it will be necessary to stop them, or they will get out of shape.

Attend to the preparation of graperies and other forcing houses for the winter, if not already done, and employ all the leisure time now to trench and prepare all ground intended to be planted this fall.

GRAPE VINES in the earliest houses will now be ripening their wood, and they should be thrown open as much as possible, both day and night, in good weather, so as to get the vines in readiness for pruning by October. Vines in the greenhouse will now have their fruit fully ripe, which should be cut so as to ripen off the wood. Keep the laterals cut in, if the house is filled with plants. Cold houses will now begin to color the crop ; air well in all good weather, as on this much depends. Discontinue watering the walks

and floors. Houses newly planted should be kept rather warm, to facilitate a good growth.

PEACH TREES in pots, from which the fruit has been gathered, should now be rather sparingly watered, using, however, occasionally, liquid manure.

STRAWBERRY BEDS may yet be made with good success. Prepare the ground as we advised last month, and set the vines immediately. Old beds should be kept free from weeds, and all the late runners cut off, unless it is intended to let them run together in beds.

PEACH TREES should be budded this month.

SUMMER PRUNING will yet require some attention. If new shoots are made from where they were last stopped, of much vigor, they should be pinched in again.

FLOWER DEPARTMENT.

The season is now approaching when the gardener or amateur must be on the alert. Towards the middle of the month the nights become cool and damp, and often white frosts, though not severe, occur: but there are many tender and delicate plants which will not even endure the cooler nights, without frost, and they must consequently be got under cover, if only a frame, as soon as convenient. It is none too early to begin to prepare for the winter. All the pots should be washed before they are carried into the house. Many things will have to be potted to keep a stock, and others will have to be propagated for the same object. *Petunias*, *Verbenas*, *Salvias*, *Heliotropes*, and many others, are best wintered by bringing on a fresh young stock, and throwing the very old ones away. Remove all hard wooded plants, which have been in a half shady place, to some sunny situation, to thoroughly ripen the wood. Many things which may have been bedded out will require to be taken up soon, and receive the aid of an old hot bed to bring them along in good condition.

CAMELLIAS should now be put in order for removal to the house upon the first appearance of frosty nights. Wash the pots, top dress and clean the plants, and tie up such as require a stake to keep them in good shape.

PELARGONIUMS headed down last month will now be in readiness to have a shift into a larger size. Proceed about it at once, and if a frame is convenient protect them from the cold and damp till they begin to make new roots. The cuttings will be rooted by the last of the month, and should then be potted off.

ACHIMENES, **GLOXINIAS**, &c., now about going out of bloom, should be placed away under the stage on a dry shelf, to make room for the greenhouse plants.

VERBENAS for a winter stock should be layered now into small pots.

MONTHLY CARNATIONS, planted out in the open ground, and coming into bud, should be taken up and potted now for winter blooming.

OXALISES, **SPARAXIS**, **IXIAS**, &c., should be potted new.

HELIOtropes in the open ground should be taken up and potted before frost.

ROSES in pots, for blooming early in winter, should now have a shift into a larger size, and slightly pruned.

MIGNONETTE, SWEET ALYSSUM, &c., in pots, may have the protection of a frame in very wet weather.

FUCHSIAS going out of flower may be placed out of doors, and be carefully watered. Young plants in full vigor may have a shift if they need it.

ORANGE AND LEMON TREES should be top dressed and taken into the house as soon as cool nights set in.

SALVIAS of all the tender sorts should be propagated now for a spring stock.

AZALEAS should have the shelter of a frame, or be put into the house before the nights become too cold and damp. If in a shady place remove them to a sunny situation, to ripen the wood. Cuttings may be put in now.

CHINESE PRIMROSES may have a shift now into larger pots. Seedlings should be encouraged to make a good growth with the protection of a frame.

JAPAN LILIES, done flowering, should now be allowed to dry off, in order to ripen the bulbs.

PYRETHRUMS should now be propagated from cuttings for a spring stock.

CALLAS should be repotted now.

NEAPOLITAN AND ENGLISH VIOLETS should be planted out in frames this month; and such as are wanted for the house potted.

FLOWER GARDEN AND SHRUBBERY.

The late refreshing rains have enlivened the appearance of this department. The grass edgings have made a fresh growth, and the abundance of weeds will keep the gardener busy enough for a time. Lawns will require to be mowed, and the walks hoed and rolled. Do not neglect anything on account of the approaching cool weather.

CARNATIONS AND PICOTEEs, layered in August, will require to be taken up and potted, or planted out in frames as soon as well rooted.

HOLLYHOCKS should have the tops cut off and the roots divided now, if a good stock is wanted.

PANSY SEEDS may yet be sown for a spring bloom; the old roots may be divided the last of the month, and new beds made.

DAHLIAS will require staking, pruning and good waterings in dry weather.

HERBACEOUS PLANTS raised from seed should now be planted out where they are to grow.

ROSES may be layered yet, though they will not root much till next year.

TIGER FLOWERS AND AMARYLLIS should be taken up before severe frosts.

HERBACEOUS PÆONIES may be transplanted this month.

LILIUM CANADENSIS, SUPERBUM, and other late flowering kinds, may be taken up and reset this month.

THE MAGAZINE OF HORTICULTURE.

OCTOBER, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *The best Season for Transplanting Trees.*

SUBSCRIBER. Which season do you prefer, Spring or Autumn, for transplanting trees? You have had some experience in this matter, and as I find my neighbors differ much in their opinions, I am anxious to have your advice.

EDITOR. It is true there are various opinions upon this matter. Many men, indeed a greater portion of those who give such advice, sometimes rather dogmatically, never planted more than a dozen trees, and those not more than once or twice in their lives,—when, perhaps, making their garden around their dwelling,—and as they, of course, chose the season they thought the best, whether fall or spring, they advise all to do as they did. Their evidence is *ex parte*; for they never took hold of the thing experimentally,—planting fall and spring for a series of successive years,—the only way to test such a question.

SUB. So I should think: but I find, too, people not only differ as regards the general season of planting, but as regards the kinds of trees suited to the season.

ED. Yes. I am aware of that: one cultivator states that he prefers the spring for all kinds of trees; another, that he prefers the fall; a third, prefers the fall for everything, except peaches; and others, would set out everything in the autumn except stone fruit.

SUB. True, and it is for this very reason that there are so many opinions that I wish to know which season you prefer, and, if not too much trouble, to give the reasons that have guided you in your choice.

ED. Willingly. It is a rule we have always adopted in our horticultural operations, never to do anything unless it can be justified upon some principle. This hap-hazard kind of gardening,—doing what others have done before us,—or following the advice of every writer who gives his year's experience to the public, is what we never practice, unless accounted for on good and sound reasons.

SUB. I have not read your Magazine without learning that long ago; and therefore ask the question in regard to transplanting trees; for, beyond the mere *ipse dixit* of the many that the fall or the spring is best because *it is*, I have been unable to learn why one season is better than the other, or why both are not good alike.

ED. It is natural enough that there should be this variety of opinions; especially among the mass of the people, who, of course, cannot have the experience of professional men; and as our general information upon gardening has been derived from English works, where the fall may be said to have no end, or the spring no beginning, so far as moving the earth is concerned, we have adopted the views of those writers who generally recommend planting in winter. Loudon says, when treating of the apple, pear, &c., they may be planted "in any open weather from November to February."

SUB. A very different climate, certainly, from ours.

ED. So different that scarcely any rules laid down by English writers will apply in many things to our own practice. Winter, with us, sets in so soon after the fall of the leaf, and the ground continues frozen so late in spring, that there is scarcely more than ten or twelve weeks, counting both fall and spring, to perform the operation of transplanting: of course, I mean in the northern portion of the United States.

SUB. I was hardly aware that the time was so short as you state, though I know it is brief enough to one who has much planting to do.

ED. Why, let us see. The leaves rarely fall before the 20th of October, and it will not generally be safe to delay planting beyond the first of December, though we often have favorable weather later—this is six weeks. Then the ground rarely opens till the first of April, and trees are frequently in bloom the first of May—making four weeks more, ten weeks in all.

SUB. According to your reckoning, we have more time in the autumn than spring, which we fail to avail ourselves of on account of the prevalent idea that spring is the best season.

ED. Just so. But this is not all. You will bear in mind that winter often leaves the ground in such a wet and sodden state that transplanting cannot be well done for some days, and frequently a fortnight is as good as lost. While in the autumn, the ground is dry, loose and friable, and the operation of transplanting can be done in half the time,—and infinitely better too,—than it can in the spring.

SUB. True enough. This condition of the soil in autumn never occurred to me; its wet state has always kept back my work in spring. Why, last year I had a quantity of trees to set out, and it was nearly the first of May before I could finish the work. It rained from the first to the fifteenth of April almost every day, and the ground was so completely saturated that the holes would fill with water almost as quick as they were opened.

ED. I recollect the time well. On the sixth of April we had one foot of snow, and up to the 21st, nearly a foot of rain. On the eighth of May, the cherries were in bloom!

SUB. This was even less time than your calculation allowed for spring work—short enough certainly.

ED. So short that we may as well give up doing much planting in one year, unless we take advantage of autumn too.

SUB. Then I understand you to say you would plant both fall and spring.

ED. Yes, both.

SUB. But you do not mean to say you have no preference of one over the other?

ED. Certainly not. You have not heard me through. My

object is to show that if fall planting is no better than spring, or even not as good, it is necessary that a good deal of it must be done then where large quantities are to be set out. I decidedly prefer the autumn for transplanting all hardy deciduous trees of any size.

SUB. Go on.

ED. Autumn planting is better than spring for the following reasons :—

1st. The time is longer than in spring.

2d. The ground is in better condition.

3d. The trees are then in the most dormant state.

4th. The roots, where cut, heal better, and are prepared to send out fresh ones even before the frost is out of the ground.

5th. The winter and spring rains settle the earth around the roots.

6th. The trees are well established before warm weather overtakes them.

SUB. These appear satisfactory reasons and based on sound principles ; but I should be glad to have you state whether you would transplant in the autumn without reference to soil or locality.

ED. Not by any means. There are soils and situations where autumn planting might be injurious ; but then these are not likely to occur : for that soil which will not admit of transplanting in the autumn is entirely unfit to grow a tree, at least with expectation of producing fine fruit ; and therefore there is little necessity of making any such exception in our rules. We are presuming that the object of every planter of fruit trees is to get good fruit. It cannot be done in a soil or situation too wet and cold to set the trees out safely in the fall. It is somewhat different with forest trees ; as it is often an object to plant up some low, cold piece of ground, needed for shade or shelter. In that case, the spring would be the preferable season.

SUB. I appreciate the truth of your remarks, and agree with you that no tree ought to be planted in a soil which cannot carry it safely through the winter. But is there no danger of winter-killing the shoots or trunk, even in favorable soils ? such is the general complaint of spring planters.

ED. Not the least : that is, no more than if the tree had not been removed. If the tree is in good health when set out, it will receive no more injury than it would have done standing in the nursery row. We have known severe winters to kill several kinds of young pear trees to the ground : if set out previous to such a hard winter, they might be injured ; but we do not think their liability to the danger increased by removal.

SUB. That is just what I wish to learn : your experience extends over many years, and through a series of variable winters, which should enable you to judge correctly of their effects upon transplanted trees, and with this experience you are confident there is no more danger of winter killing than if set out the previous spring ?

ED. Not any ; except as I before stated, when planted in cold, wet and unfavorable soils.

SUB. This point settled, which has been the greatest bug-bear in the way of autumn transplanting, leaves little doubt of its being the best season. Your fourth, fifth and sixth propositions appear to decide the question. There can be no doubt of the better ability of the trees to send out roots early in the spring, which will enable them to resist our June and July droughts, so trying to all transplanted trees.

ED. Have you ever carefully noted down the changes in the growth of newly planted trees ? If not, do so another year. You will find that a tree set out in April will break freely, and start into growth vigorously ; but by the time our early rains are over and dry weather sets in, then they often come to a dead stand—scarcely another shoot will they make all summer. Just at the time the greatest supply of sap is required, the tree is unable to give it, as it has not yet established itself sufficiently to furnish that supply ; consequently the growth stops, and in many instances death ensues.

SUB. Without noting particularly the condition of trees which I have transplanted in the early part of the season, I have lost too many not to be aware that, in June or July, they generally have completed about all the growth they make the first year.

ED. Now give the same attention to those you set out in the fall. You will find they will rarely start so early, and generally not so vigorously, as the spring-planted ones. They come along slow, but sure—no faster than the roots are made which have got the start of the shoots—and in July and August will make almost as much wood as an old established tree. If, again, you look into the subject thoroughly you will find the roots are at work long before the surface of the soil is loosened from its frosty hold. Just as we see an old tree, after one or two hot days in April or May, break at once into leaf. If, however, the frost was not out, the tree would remain stationary: this shows that there is root action long before we see it indicated by the breaking of the buds.

SUB. Very reasonable and true. It must weaken the energies of any tree making much wood to attempt to supply the food which a week of June or July weather would extract.

ED. Precisely so, and a little observation will convince any one of this.

SUB. Something has been said in favor of the autumn, that trees make roots after they are set out at that season. Is this so?

ED. This question is not one of doubt, but of fact. Capt. Lovett, in an article in our Magazine some years ago, (Vol. X, p. 161,) has shown that trees transplanted early in the autumn always put out new roots before winter, and when protected by a covering of manure or leaves, to keep out the frost, the root-making process goes on until mid-winter, and we are inclined to believe *all* winter. This we know, that roses, currants, or any similar shrubs which root easily, if put into a frame in November, and protected so as to keep out all frost, may be taken up with good roots in April: showing that the formation of roots goes on when the plant is in what we generally term a dormant state.

SUB. My observation, though somewhat limited, has, however, convinced me that the reasons you give in favor of autumn transplanting are founded on sound principles, and when understood cannot fail to be generally followed. At another time I have some further questions to ask about pruning and summer treatment.

ART. II. *On the Embellishment of Dwelling Houses and their Enclosures.* By WILSON FLAGG.

THE majority of writers on rural improvements are Englishmen, and have written with reference to the wants of the wealthy alone. Their rules can only be carried into effect by men of vast pecuniary resources, and are almost without any use to those of moderate means. We have but few men of such wealth in this country, and it is not desirable that they should be greatly multiplied. When treating of the improvement of landscape, in this country, one should write for the masses, for men who are either poor or only moderately wealthy. It ought to be shown in what manner the most pleasing and desirable effects may be produced, by stating rules and principles which can be adopted and carried out by the poorest man in the country, who owns a house and an acre of land. Such rules would encourage the whole people to unite harmoniously in this great work, instead of leaving every place neglected that is not owned by one of the princes of the land.

It is the object of my present essay to treat of the advantages of consulting *picturesque* rather than *beautiful* effects, in the embellishment of our dwellings and their enclosures. Most writers, when considering the style and decorations of a dwelling, have reference only to absolute beauty, and picturesque effects have been almost entirely overlooked. They speak of harmony, symmetry, proportions and colors, because these are constituents of the beautiful; but that combination of simplicity, neatness, naturalness, and certain other qualities, which, by suggesting agreeable thoughts or awakening pleasant emotions, constitute the picturesque, are either omitted or obtain but a few passing remarks. All this neglect arises from narrow and imperfect conceptions of the nature of these qualities as applied to improvements in landscape and architecture. The difference between the beautiful and the picturesque is not correctly understood by many professed writers on the subject. Even the late Mr. Downing overlooked the

distinction; and in the greater part of his writings he treats exclusively of the beautiful as applied to rural and architectural decorations. He has bestowed some few remarks on expression; but they are of such a character as to show that he had not a full appreciation of the nature of these effects.

It is remarkable that variety, which is one essential ingredient of the beauty of forms, is considered by Burke, and after him by Sir Uvedale Price, one of the qualities of the picturesque, as distinguished from the beautiful. Irregularity, rudeness and roughness are classed by them in the same category with variety. This is an error that greatly diminishes the value of the speculations on these subjects, which these two eminent authors have contributed to English literature. After Mr. Price, there are many who, following his authority, believe that nothing intrinsically beautiful can likewise be picturesque, and confine this latter term to ugly objects which have the power of exciting certain peculiar emotions, such as a dilapidated house, or an old branchless trunk of a tree. I would suggest to these theorists, that the picturesque quality of such objects is not their ugliness, but the representation of something once beautiful, valuable or magnificent, now ruined by the hand of time. The reason why an old building or an old tree is more picturesque than a new building or a young tree, is founded on the poetic sentiment associated with the remains of antiquity and the ravages of time. An old dilapidated house awakens the poetic sentiment of melancholy in some minds; in others it is connected with interesting romantic images, with curious ancient customs, with old people of a by-gone generation, and with the legends and traditions of fireside romance. It gives origin to a pathetic flow of sentiment, and the quality that produces this influence on the mind is its picturesque expression. In the case of the ruined tower or castle or palace, it is the historic associations attached to them that produce their picturesque effect; and it is the idea of rustic simplicity, suggested by the unadorned cottage of the peasant, that confers upon the latter a similar expression.

We are charmed with the apparent indications or expression of certain amiable virtues, such as humility, resignation,

innocence, cheerfulness and contentment. If we observe the same in a face, as in that of a simple-minded and intelligent-looking old person, this face, if skilfully represented on canvas, would become a favorite painting. Anything that suggests the idea of similar qualities in the style or the decorations of a cottage, renders it a favorite subject for the artist. These are some of the qualities of the picturesque. Beauty would serve to heighten its effect just so far as it harmonizes with it; as a beautiful face would render a young peasant girl still more interesting in her rustic garb. Though the picturesque and the beautiful are distinct qualities, they may in certain ways and proportions be united in the same object or scene. The peasant girl in her rustic garb is the more picturesque on account of her beautiful face; but were she to add to her garb some of the elegant ornaments of fashion, she would be grotesque and ridiculous.

The picturesque character of any building is that quality belonging to it, or connected with it, which excites in the mind an agreeable sentiment or emotion, independently of its intrinsic beauty. Such is an apparent adaptedness to pleasant rural retirement and domestic peace and comfort. A plain cottage, overgrown with vines and creeping plants, suggesting that the inmates are humble people, endowed with a love for the beauties of nature, and uncorrupted by any foolish ambition, has an expression that renders it a pleasing object for a cultivated mind to behold and contemplate. But it is not necessary that a cottage should be reduced to such a state of rudeness as to make it evidently the habitation of rustics. Rusticity is a picturesque quality; and it is this idea that possesses the minds of certain improvers when they rather absurdly build a fence of rough rails around a highly ornamented villa. In this case, the contrast is too striking to produce a good effect. There are other expressions which are sufficiently rural, without rudeness or rusticity. It is a still greater error to suppose that a cottage should be a miserable hovel to be picturesque. Any quality which is suggestive of squalid wretchedness, or any kind of discomfort, injures this expression. But any appearance that is suggestive

of humble poverty, goodness and simplicity, joined with a happy life, is highly picturesque, by arousing a train of agreeable, poetic and virtuous associations. We can easily sympathise with the inmates of such an abode. We see nothing in it indicative of pride, ostentation, or the foolish aping of one's superiors, anything to provoke jealousy or ridicule. There is more of the love of virtue in the human heart than the generality of men are ready to admit. The worst people in the world despise the very qualities which degrade themselves. They hate the manifestation of pride and selfishness, and delight in that of contentment and humility.

It is of the greatest importance for the attainment of good picturesque effects, to provide for an appearance of neatness and comfort in the scenes and enclosures around our habitations. If this be wanting, the mind of the spectator is affected with disagreeable sympathies,—with pity of the inhabitants for their want of comfort, or contempt for their want of neatness. Neatness must not be confounded with primness, or the manifestation of a great deal of labor or expense, in providing paint or whitewash or fanciful decorations of the fences and outbuildings. An unpainted cottage, with a mere footpath winding along from the roadside to the front door step, consisting of a rough slab of granite, with the grass growing all around it, may exhibit a perfect pattern of neatness; while a highly ornamental cottage, with white painted fences, a straight gravelled walk, and other finical appurtenances, may exhibit a disgusting example of slovenliness. If neatness be combined with simplicity around a plain cottage, it has a double charm, by suggesting the idea of comfort and thrift unassociated with wealth and pride. It is natural for the wealthy of uncultivated taste to banish simplicity from the rural decorations of their dwelling-houses, because it seems calculated to conceal that wealth of which they are ostentatious. This species of vanity would be comparatively innocent if it were confined to the wealthy. But how often do we see a house built by a poor man, with borrowed capital, which is expressive only of the effort of the builder to make the house wear a false appearance of great cost.

Such builders fancy themselves guided by taste, while they are only aping what they cannot successfully imitate. It should be a rule with all who are going to build or decorate a house, to take their models from cheaper houses, than such as they can afford to build, and improve upon them. The contrary rule is their present guide. They take an expensive house for their model, and make up in sham what they cannot afford in perfection. Such houses are sufficiently numerous in this country to destroy the picturesque effects of our landscapes ; for nothing is so ridiculous as the result of an unsuccessful attempt.

That sort of neatness which is compatible with a simple and natural appearance of one's enclosures, may be preserved comparatively with little labor or cost. To preserve neatness, on the other hand, in the midst of costly and luxurious embellishments, whether rural or architectural, requires the constant employment of proportional labor and expense. The man of moderate means, therefore, who imitates the wealthy by a profusion of architectural ornaments, shrubbery and flowers, must imitate them still further by hiring laborers to keep them in decent trim. On this account, it is advisable for every one to consider, when laying out his grounds, whether he is not providing either for a constant source of expense, or a yard full of litter and deformity. Let one by these means strive to attain picturesque effects, and leave more costly decorations to those who can pay for them, and he would derive vastly more satisfaction from the results.

It is the habit of overlooking these considerations that causes so much slovenliness about the enclosures of most of our houses in the country. The owner has commenced by laying out more work than he can afford to perform. As the majority of men who own houses cannot afford to hire much labor, it is reasonable to inquire what is the best method of decorating them and their enclosures with the least expense and the happiest effects. Fortunately that style which is the most delightful to contemplate, though not the most dazzling to the eye, is that which is most favorable to the economy of labor and expense.

Let me, for the illustration of my remarks, draw two pictures of scenes which are of frequent occurrence. When passing through a country village, we may observe on a slight elevation, a few rods back from the street, a plain square cottage. As it never was painted, the dark stone-color of its walls pleasantly harmonizes with the green lawn in front and on each side of the house. This is kept constantly shorn by a few cows, that are allowed to graze upon it after returning from pasture. No fence encloses this beautiful plat of verdure, which is shaded by three large trees. Beneath one of them is a well, with a plain unadorned curb. In the rear of the house a load of wood is neatly piled against the rugged stone wall. On the smooth shaven green around the house there is an absence of all litter. The fruit trees in the near orchard are thrifty in their appearance, and the branches which have been lopped from them are cut up for fuel, and thrown into a conical heap a few steps from the back door. The barnyard is covered with straw, and gives evidence that some neat hand has been industrious with the hoe and the shovel. The cows and cattle are sleek and clean, and the pigs are neatly penned at the further side of the barn. A footpath winds along from the street to the front door, and another is seen in the rear of the house leading to the field or garden. There is neither paint nor whitewash anywhere to be seen; yet every beholder would point to the place as a pattern of neatness and comfort.

Let us now examine the other picture. A prim white fence surrounds the white painted house, enclosing a narrow strip of land on each side, which is crowded with exotic shrubbery. A gravelled walk, half covered with knot grass, leads from the street to the front door. Beneath the shrubbery, the soil, which seems to have been dug up in the spring, has been planted with a variety of annuals, that grow in disorder, half concealed by a crowded assemblage of weeds. Flowers, weeds and shrubbery, briars, evergreens and faded stalks, are yellow with dust from the street. The rosebushes, which had once been trained against the verandah, have fallen down, and, in spite for the neglect they suffer, tear the dresses of women and children as they pass out of the house.

The stiff spruces and firs, that stand like sentinels at each corner, are as dusty as a soldier who has performed a day's journey over the highway. A dirty hen-coop and pig-sty, each with a prim white fence, blend their perfumes with that of the roses, the tiger lilies, and the hollyhocks, that show their dingy faces through the weeds and stubble. The grass around the house has rotted in a blackish semicircle under the back windows, where the slops, apple parings and potato cuttings have been thrown out by the labor-saving housewife. Upon the shrubbery under the windows numerous threads and narrow strips of linen and calico are thickly suspended, like the long moss that hangs from the maples in our swamps. The enclosures, which must have been originally laid out and planted at considerable expense, resemble a dandy, who, having been suddenly overtaken by poverty, has continued to wear his costly garments until they are miserably soiled and ragged.

I do not suppose that the inmates of these finical and showy houses are less disposed to be neat in their habits than the inmates of houses of a more humble appearance. But it may be safely asserted that when a dwelling-house is surrounded by a mingled mass of flowers and shrubbery, its enclosures, without extraordinary painstaking, cannot be preserved in so neat a condition as one surrounded by a clear open lawn. I know that the practice of surrounding one's house with a fence enclosing a narrow yard, and of filling it with all kinds of shrubbery, is so general, and is so generally regarded as an evidence of taste on the part of the owner, that many would deem it a sort of profanity to ridicule it. It is not the shrubbery so much as the manner in which it is kept, that is to be condemned.

It was not until after a good deal of reflection that I could explain the reasons why those situations were so pleasing, where the house stood upon an open lawn, unenclosed in front by a fence. These places have a certain agreeable picturesque expression, the cause of which was a problem not easy to be solved. I was at length convinced that it was an appearance of combined comfort, neatness and freedom that

gave them their interesting aspect. It is requisite, however, that such a place should be shaded by trees; otherwise its appearance is too bleak to be agreeable. There is likewise a pleasing moral expression about such a place that adds to its effect. An open space in front of the house suggests the idea that the owner is a liberal-hearted or humble-minded man, who is not afraid of vulgar intrusion. Fences should be built only for protection; and where no such protection is needful, it is a useless appendage, that serves to mar the pleasing effects of the whole scene. An elegant fence might greatly increase the beauty of a place, but would spoil its picturesque attractions, which are far more important,—as the expression of the human face is of more importance than the ruffles and jewelry that surround it.

The appearance of adaptedness for pleasant retirement and seclusion is one of the qualities of a scene that renders it picturesque; and it is said that a fence or hedge-row in front of the enclosures would promote this appearance. I contend, however, that one's front yard is not the place for seclusion, which ought to be sought in the rear of the house, where any amount of shrubbery might be cultivated for this purpose. A fence or hedge-row, unless the house is on a ground more elevated than the street, serves to hide from view a great deal which is really laid out for observation. Most people decorate the outside of their houses for the public eye, and, whatever they may believe to the contrary, not entirely for their own. Other things being equal, they are best satisfied with those decorations which they believe will elicit the most intelligent approbation. It is idle, therefore, to ornament one's dwelling, and then conceal it from view by a high fence or hedge-row. The greater number of the enclosures of houses, on a street where there is much travel, require some kind of a fence; but this should always be of open work, and as simple and as low as it may be to answer the purpose of protection.

It may be objected that a house looks bald without shrubbery, or something in the place of it. If it stand on a green lawn, shaded by trees, this baldness would not be so disagreeable to the eye as a crowded assemblage of bushes covered

with the dust of the street. That tangled confusion, which is so delightful in the wild pastures, may be perfectly disgusting immediately about one's doorstep. But this baldness, which it is truly desirable to avoid, ought to be relieved by a honeysuckle, or some kind of climbing plant, trained over each door. Vinery does not conceal from sight either the house and its proportions or its enclosures, and a few festoons over each of the porches, if more could not be properly kept, would be sufficient to produce the desired effect. Let the house stand as far as practicable from the street; let the trees be so far from the house as not to hide it, and have likewise ample room to extend their branches; let the house standing on a clear open lawn be tastefully ornamented with vines, in such a manner as to improve the architectural beauty which it may possess, and the whole place would have a charming effect on the mind of every beholder.

A profusion of beautiful ornaments, even if they were as easily procured and as cheaply maintained, are not to be preferred to good picturesque effects, whenever the latter are practicable. In a crowded street they cannot be obtained, and here therefore is the place for ornamental architecture. Just in proportion as the beautiful is sought, expense must be lavished. The most desirable picturesque effects, on the other hand, are compatible with plainness and simplicity. They may also be maintained with comparatively little expense. Beauty is more complicated, more luxurious and more costly. Picturesque effects, however, require a higher exercise of the faculty of taste. Any body who has money enough can make a beautiful and showy house, by means of sculptured and architectural decorations. He can do the same with his enclosures. By a profusion of sculpture, and a variety of flowers geometrically arranged, he may produce very dazzling effects without one particle of genius. But one must be possessed of the true genius of a painter, to make such an arrangement of the house and outbuildings, grounds, trees and shrubbery, as, without any great lavishment of money, to produce that indescribable charm which shall delight every eye. We see but very few such places, for the

reason that nearly all who build houses ape one another, and never think of anything save the gratification of their vanity, which most generally consists of a desire to be thought wealthy. Of the few such model places that are to be seen, the most are the result of accident. It is by carefully observing these, and tracing to their source the agreeable sensations felt on beholding them, that we can learn the principles on which their picturesque effects are founded. An exact imitation of the model must be equally pleasing; but as designs must be made to suit different situations, we cannot transfer the genuine charms of one place to another without thoroughly comprehending the true and secret causes of the pleasure they give to the spectator.

In conclusion, I will repeat that it seems vastly more important to strive after these picturesque advantages in the style of our dwellings and their appurtenances, than to seek for a showy or ambitious style of architecture. It is of but little importance whether a house be Gothic or Grecian, Swiss or Italian, English or American in its style, provided it be justly proportioned, and destitute of meretricious ornaments, and the grounds and outbuildings be so arranged as to render the situation pleasing to the eye. How beautiful soever a house may be, we may surround it with such decorations as shall cancel the whole effect of the fine style of its architecture. Too much stress has of late years been placed on mere architectural ornaments. Seek propriety in the style of a house and let its beauty consist rather in its proportions than its ornaments. Let it be made attractive by a tasteful and expressive laying out of the grounds, and you will have done what will yield the most lasting satisfaction to the owner, the occupant, and the public in general.

Beverly, Sept. 13, 1853.

Mr. Flagg has a Lyceum Lecture carefully prepared "On the Picturesque." The article in this magazine is no part of the lecture, which treats of the subject in the abstract, elucidating it by a variety of images drawn from nature and art.—Ed.

ART. III. *Descriptions and Engravings of Select Varieties of Pears.* By the EDITOR.

IN our several articles describing new or choice pears, of which this is a continuation, commenced in 1844, (Vol. X,) we have endeavored, as far as possible, to keep our American sorts together, thinking this plan not only more interesting at the present time, but much more valuable for reference hereafter. The adoption of this course, however, compels us to keep back some new varieties until we make up the number (six) requisite for an article; still, we think, with this little delay, that it is preferable to describing the native and foreign sorts together.

It is certainly somewhat remarkable, as it is surprising, that, in the course of twenty-four years, a larger number of really fine pears have been brought to notice, of American origin, than have been introduced from Europe in the same time, or we think we might safely add, in the last fifty years. It is beginning to be a "fixed fact," that, for general cultivation, our native sorts can be relied upon with more certainty than the foreign; for while many of the latter are all that could be wished or desired, under certain conditions of culture, they quite fail when left to the same treatment given to many of our American varieties. The Beurré Diel, Napoleon, Doyenné, Leon le Clerc, &c., often crack and split open; when, in the same soil, and close by the side of them, the Swan's Orange, Sheldon, Lawrence, Collins, Seckel, &c., show no signs of such defect. We have just twenty-five American sorts of pears standing in one row, and every one is bearing sound and beautiful fruit; while on the opposite side of the walk some of the foreign ones have lost half of their crop by cracking open. We are convinced that we have not yet fully appreciated the merits of our native pears; every year proves their hardiness and certain crops, and we mistake much, if a few years do not find them greater favorites with cultivators than they have heretofore been.

We now add six American varieties to our list:—

157. BRANDYWINE. *Horticulturist*, Vol. III.

The Brandywine (*fig. 30*) is one of the most recently introduced of our American pears: it was briefly described in our volume for 1849, (XV, p. 16.) Specimens were sent to the Mass. Hort. Society in 1848, by Dr. Brincklé of Philadelphia, which the Fruit Committee thought remarkably fine. They were taken from the original tree. Since then we have not seen it, or had an opportunity to try it, until the present season, when a tree in our collection produced several fruits. We found it to be one of the most delicious sum-

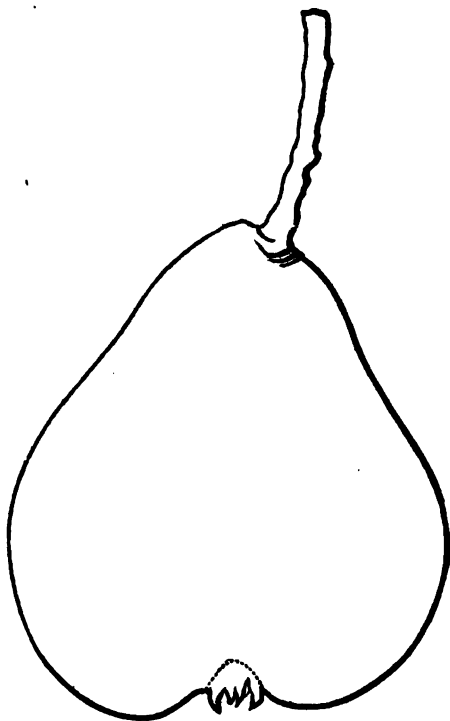


Fig. 30. Brandywine.

mer varieties we have ever eaten, superior either to the Tyson or Rostiezer, though greatly resembling in appearance the former pear.

The qualities of the Brandywine are peculiarly its own,

and cannot be compared with any other variety. Its flesh is slightly firm, yet perfectly melting; and its flavor, without being highly perfumed, appears to be a concentration of that of several sorts, being almost as sugary as the Seckel, yet relieved by the refreshing aroma of the Marie Louise, and the "champagne" smack of the d'Arenberg. It is as distinct in character as the Seckel.

The Brandywine is a native of Chaddsford, Delaware Co., Pa. The original tree was found near a fence on the farm of the late Eli Harvey, and was transplanted into the garden of Mr. George Brinton, of that place. This garden is on the banks of the Brandywine river, and is a part of the grounds occupied by the American army who defended our country in the battle of Brandywine. It was, therefore, very appropriately named the Brandywine pear. The original tree begun to bear fruit as long ago as 1820, but in 1835, the tree blew down near the surface of the ground. The present tree is a sucker, which begun to bear again in 1844. This fact accounts for its not sooner having become known to cultivators. Previous to 1835, when the tree blew down, very little interest was felt in regard to our native pears; now, that interest is universal, and no sooner had the sucker which sprung from its root come into fruit, than its merits were at once made known to all cultivators.

The tree is a vigorous grower, with a handsome pyramidal habit. The shoots are very upright, almost like the Buffum. The leaves are small, deep green, curled somewhat, and glossy. Wood, dark reddish brown.

Size, medium, about two inches and three quarters long, and two and a half in diameter: *Form*, pyramidal, or somewhat bell-shaped, slightly irregular, full at the crown, which is little oblique, and rather suddenly contracted near the stem, occasionally with an elongated neck: *Skin*, slightly rough, yellowish green in the shade, russeted around the crown, boldly tinged with bright red in the sun, and thickly covered with large russety specks: *Stem*, rather long, about one and a half inches in length, moderately stout, slightly curved, and generally obliquely attached, without any cavity, by

a somewhat fleshy and wrinkled base : *Eye*, large, open, and but little depressed in a small, roundish, furrowed basin ; segments of the calyx, short, stiff, entire, projecting : *Flesh*, yellowish white, coarse, melting, and very juicy : *Flavor*, rich, brisk, vinous, and delicious, with a fine aroma : *Core*, medium size : *Seeds*, small, dark brown. Ripe the last of August.

158. **PETRE.** Loudon's *Gard. Magazine*, Vol. VIII, p. 587.

The Petre pear (*fig. 31*) does not seem to have been fully appreciated. In 1837, the late Mr. Manning noticed it in our Magazine, (Vol. VI, p. 86,) and remarked "that in any collection it would be prized as a first-rate fruit." Since that time we have not had an opportunity to test the variety our-

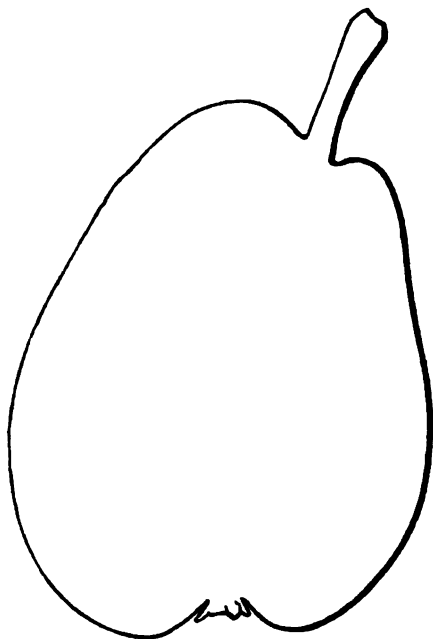


Fig. 31. Petre.

selves until last season, and we hesitate not to say that, judging from the specimens we have received from Philadelphia, Mr. Manning has not overpraised this fine pear. The tree is

a slow grower, and tardy in coming into bearing, which accounts somewhat for its absence from general collections. In this respect it is like the Dix; but when it begins to bear it well repays the delay by its abundant crops—the old parent tree, which is more than 100 years old, is believed to have borne more than 600 bushels of pears. In some years it has produced ten to twelve bushels.

The Petre pear was raised by the elder John Bartram, proprietor of Bartram's Botanic Garden near Philadelphia, from a single seed sent in a letter from Lord Petre, of London, in 1735. It was planted near one end of the dwelling-house, at the edge of a gravel walk, where it never received any manure or rich earth. It began to bear when about twenty years old, and in twenty-five years after the seed was sown, ripe fruit was returned to Lord Petre, who pronounced it better than that from the original tree.

From the habit of the tree, the form of the fruit, &c., we should think the seed might have been from the St. Germain. It more resembles the Dix than any other pear.

The tree is a slow grower, with a slender habit while young, but making a large tree. Wood, yellowish brown.

Size, large, about three inches long, and two and a half in diameter: *Form*, oblong, or obovate, largest about the middle, rounding off to the eye, and rather obtuse at the stem: *Skin*, fair, yellowish green, very slightly tinged with blush, intermingled with spots of green, and thickly covered with large russet specks, with some tracings of russet around the crown: *Stem*, short, about half an inch long, straight, stout, and inserted in a small, shallow, contracted cavity: *Eye*, small, open, and little sunk in a small regularly formed basin; segments of the calyx, short, reflexed: *Flesh*, yellowish white, coarse, melting and very juicy: *Flavor*, rich, sugary and sprightly, with a high musky perfume: *Core*, large, slightly gritty: *Seeds*, small, very dark. Ripe in October, and keeps well.

159. **KINGSESSING.** *Horticulturist*, Vol. II.

The Kingessing (*fig. 32*) is another Pennsylvania pear,

introduced to notice by Dr. Brincklé, and described by him as above quoted. It has a great resemblance to the Stevens's Genesee, ripening about the same season; but it is superior to that variety, and has the good quality of not rotting at the core like the former pear. It is a large, very beautiful and delicious fruit.

Dr. Brincklé, in his account of it, states that it is a natural seedling, which sprung up in the family burial ground of Mr. Isaac Leech, in Kingsessing Township, Pa., about four miles from Philadelphia. The tree is now about twenty years old,

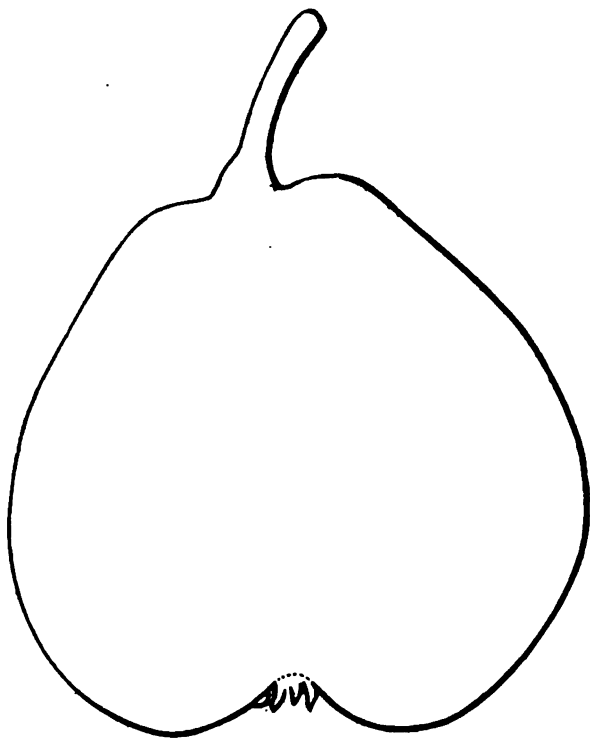


Fig. 32. Kingsessing.

and began to bear eight or ten years ago. Dr. Brincklé thinks, from its close resemblance to the Chapman, that it is probably a seedling from it, or of its parent the Petre. The original trees of both of the latter sorts are less than a mile from the Kingsessing.

The tree is of moderately vigorous growth, upright, and somewhat thorny, with brownish olive wood, and medium-sized, bright greenish leaves.

Size, large, about three inches long, and three broad : *Form*, roundish obovate, somewhat angular, broad near the crown, obtuse at the stem : *Skin*, fair, smooth, clear lemon yellow when mature, beautifully tinged with red on the sunny side, and thickly dotted with prominent russet specks : *Stem*, medium length, about three quarters of an inch long, stout, fleshy at the base, and obliquely inserted without any cavity : *Eye*, medium size, open, and rather deeply sunk in a large, round, open basin ; segments of the calyx, long, narrow, projecting : *Flesh*, yellowish white, coarse, melting, and very juicy : *Flavor*, rich, sugary, sprightly, perfumed and excellent : *Core*, large, slightly gritty : *Seeds*, medium size, obovate, sharply pointed. Ripe in September and October.

160. *Ott. Magazine of Horticulture*, Vol. XV, p. 105.

Ott's Seedling, of some catalogues.

The *Ott* (*fig. 33*) is another variety to which cultivators are indebted to Dr. Brincklé for bringing it to notice. In the summer of 1848, he sent several fine specimens to the Mass. Hort. Soc., which were tried by the Fruit Committee and pronounced of the highest merit. Dr. Brincklé then sent it under the name of *Ott's Seedling*, and we so called it in a description we gave of it in the *Magazine of Horticulture* ; subsequently he described it in the *Horticulturist*, where he called it simply the *Ott*, which is now generally adopted.

Every fine early pear is a decided acquisition ; for it is just before the Bartlett comes in that there is, at present, a dearth of good sorts. The *Ott* and the *Brandywine* are therefore far more valuable than if they were September or October fruits, when we have an abundance of large ones, which would throw these smaller kinds aside, no matter how choice their quality. The size of the *Ott* is rather small, but it comes nearer to the flavor of the *Seckel* than any other variety we have seen.

The *Ott* is a seedling of the *Seckel*, and originated with

Mr. Samuel Ott, of Lower Marion Township, Montgomery Co., Pa., about seven miles from Philadelphia. The original tree is now nearly twenty years old. It is, we believe, the first seedling directly from the Seckel which has so far borne fruit of any reputation. In general characteristics it resembles its parent, both in its growth and fruit. Mr. Ott stated to Dr. Brincklé, that it grew larger than the Seckel, but all the specimens we have seen have been rather smaller: perhaps, as the trees get age and vigor, they will improve in size. If so, it will add greatly to the value of this variety.

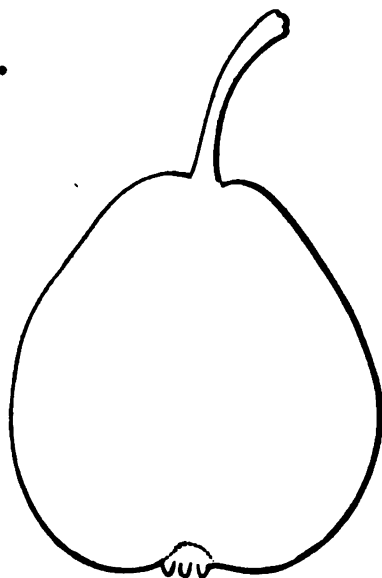


Fig. 33. Ou.

Size, small, about two and a quarter inches long, and two and a quarter in diameter: *Form*, obovate, regular, largest about the middle, rounding off to the crown, and narrowing to the stem, where it is obtuse: *Skin*, slightly rough, dull green, becoming yellow when mature, little russeted, particularly around the stem, bronzy red on the sunny side, and dotted with russet specks intermixed with some greenish spots: *Stem*, medium length, about one inch long, rather slender, and obliquely inserted in a very small cavity, highest on one side: *Eye*, medium size, open, set in a very small,

scarcely depressed basin ; segments of the calyx short, entire : *Flesh*, greenish white, coarse, melting and very juicy : *Flavor*, rich and sugary, with a spicy aroma resembling the Seckel : *Core*, small : *Seeds*, medium size, slightly pointed at the base, black. Ripe from the middle to last of August.

161. SECKEL. Coxe's *Fruit Trees*, pl. 25.

Seckle, of many authors.

Sycle,

Red Cheeked Seckel, } According to *Lon. Hort. Soc. Cat.*

New York Red Cheek,

Shakespeare, of some French collections.

We close our descriptions of Pennsylvania pears with the Seckel, (*fig. 34*,) and we think the Key Stone State may claim a pretty prominent place in the production of native varieties. The Seckel has a world-wide reputation of itself,

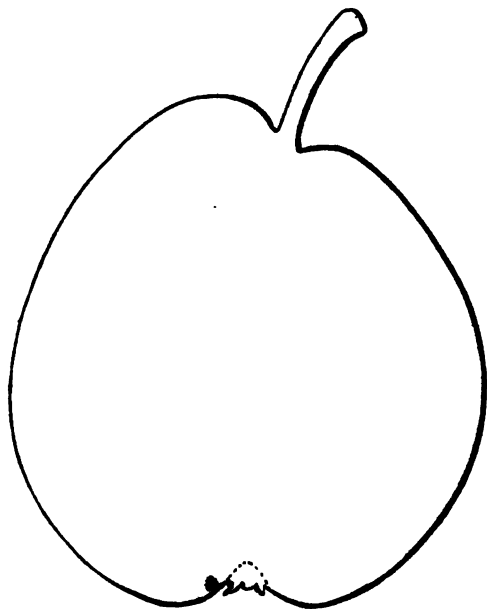


Fig. 34. Seckel.

and, with the Brandywine, might challenge any other State or country to produce their equals. It is now upwards of thirty years since Coxe first described it, and yet it is the

most popular pear in cultivation, unless we except the Bartlett, whose large size and showy exterior give it a claim over its smaller neighbor. Its popularity will never wane, for it must always be one in the smallest collections of pears.

The history of the Seckel is, that the original tree was found growing on the estate of Mr. Seckel, near Philadelphia, after whom it was named. It is believed to have sprung from a seed of the Rousselet de Rheims. Dr. Hossack first sent trees of it to the London Hort. Soc. in 1819, with a description and drawing of the fruit, which was published in their *Transactions*. It attracted great attention, and its peculiar excellence, quite unlike any other pear, at once secured for it a favorable reception. It is one among the very few of our fine American sorts which have yet received the least attention from English pomologists, who seem to prefer the Aston Town, Crassane, Easter Bergamot, and such trash, to the Andrews, Dix, Heathcot, &c. The prejudices of our transatlantic friends are so great that they can scarcely be persuaded to try an American fruit. Even Mr. Rivers plants his 500 Capiaumonts to supply the London market; and in a list of the best pears recommended by Mr. Thompson for an amateur collection, as late as 1844, the only American variety was the Seckel!

The Seckel is a vigorous though slow growing tree, scarcely ever attaining a greater height than twenty feet: its habit is upright and very compact, making a broadly pyramidal head. It is also exceedingly tardy in coming into bearing, and from its great fruitfulness needs much thinning to obtain large and handsome specimens. It does not grow well on the quince.

Size, small, about two and a half inches long, and two and a quarter in diameter: *Form*, roundish obovate, largest in the middle, narrowing each way, with a rather small crown, and somewhat obtuse at the stem: *Skin*, nearly smooth, of a clear golden russet when mature, with a ruddy cheek on the sunny side, and rather thickly dotted with small grayish specks: *Stem*, short, about half an inch long, moderately stout, and inserted in a very small contracted cavity highest on one side: *Eye*, small, partially closed, and set nearly even with the sur-

face ; segments of the calyx, short, stiff, inverted projecting : *Flesh*, yellowish white, fine, melting and very juicy : *Flavor*, sugary, rich and luscious, with a peculiar aromatic spicy perfume : *Core*, medium size : *Seeds*, small, broadly ovate. Ripe in September and October.

162. **MERRIAM.**

The Merriam (*fig. 35*) is one of the latest additions to our native pears. It has not yet, we believe, fruited anywhere except upon the original tree, specimens from which have repeatedly been exhibited before the Mass. Hort. Soc., without attracting the least attention, till within the last two or three years, when all at once its merits seem to have been

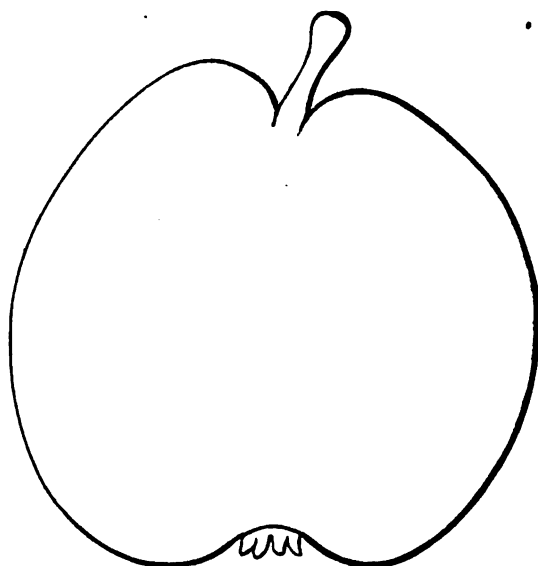


Fig. 35. Merriam.

discovered. We must freely admit that we tried the pears two years before we thought much of them, and at last our appreciation of them was accidental. Specimens were often presented to us by J. W. Kingsbury, Esq., of Roxbury, near whose residence the original tree is growing : the last time

we received them they were so immature that we laid them away to ripen, and among many other sorts forgot them for some days, when, upon opening them, they had become entirely changed in color, and just in the right condition to eat; we were most agreeably surprised to find them really excellent, and surpassed by very few of its season. From a dull greenish looking fruit, they had changed to a rich golden russet, showing in spots a deep yellow ground, as taking to the eye as they were grateful to the palate. In this state they so much resemble the Gray Doyenné, that it would seem as if the latter must have been the parent.

The Merriam originated in Roxbury, and the old tree is now very large, thrifty, and literally bending under the immense load of pears; a branch exhibited by Mr. Kingsbury, only two or three feet long, had more pears upon it than we ever saw crowded into the same space. Its productiveness is prodigious. This, added to its other fine qualities, render it a most desirable variety. We do not know whether it will succeed upon the quince or not.

Size, large, about two and a half inches long, and two and a half broad: *Form*, roundish, regular, large at the crown, which is somewhat flattened, rounding off to the base, one side of which is higher than the other: *Skin*, nearly smooth, dull yellow when mature, but nearly obscured by a thick covering of smooth pale russet around the crown and stem, and dotted and interlaced with the same color throughout: *Stem*, short, about half an inch long, moderately stout, straight, and inserted in a small contracted cavity, with a protuberance on one side: *Eye*, small, closed, and little sunk in a shallow unevenly furrowed basin; segments of the calyx, short: *Flesh*, yellowish white, coarse, melting and juicy: *Flavor*, sugary, sprightly, pleasantly perfumed and excellent: *Core*, rather large: *Seeds*, medium size, broad, dark brown. Ripe the last of September, and is in eating nearly four weeks.

ART. IV. *Description and Engraving of the Langdon's Seedling Plum.* By Dr. G. W. RUSSELL, Hartford, Ct.

I SEND you a description and outline of the Langdon's Seedling plum, (*fig. 36.*) If it has never been described you may use your discretion about publishing it. It originated some years since in the garden of the late Reuben Langdon of this city, and, coming to the notice of Mr. Taintor, was sent by him to Boston, where it received the name it now bears.

The tree is a rapid grower, spreading in its habit, with strong, smooth shoots, and large leaves, very similar to the Washington, from which I suspect it to be a seedling.

The fruit is large, several specimens measuring six inches in circumference, roundish oval, with a faint line as a suture; skin purplish red, inclining to light green in the shade, with specks of purple, presenting a mottled appearance, covered with a thick blue bloom, underneath which are minute white dots; stem three fourths of an inch long, moderately stout, and downy, inserted in a round and deep cavity; flesh yellow,

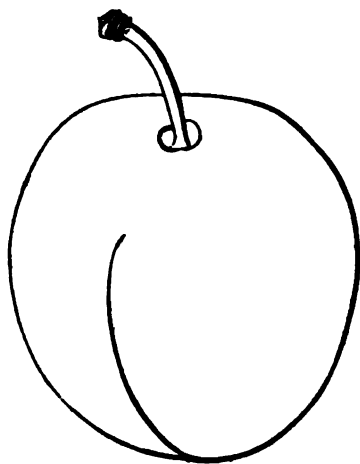


Fig 36. Langdon's Seedling.

low, melting, juicy and sweet, with a smart taste of acid next to the skin, adheres slightly to the stone; presents a ragged appearance when cut, like the flesh of the Washington. Ripe twentieth to last of August.

Now this is not a first rate plum, but I am satisfied it is better than one half that are cultivated. It has been preferred to the Washington when eaten with that, by unfamiliar pal-

ates, the slight acidity relieving it from the predominant sweetness of the latter.

Hartford, Ct., Aug. 1853.

We are glad to receive the above account of Langdon's Seedling plum. In September, 1844, during our absence in Europe, when Mr. P. B. Hovey had charge of the Magazine, Mr. J. A. Taintor sent us a quantity of these plums, with scions for budding, and a brief notice of it will be found in our volume for that year, (X, p. 349.) The opinion of Mr. P. B. Hovey was that "it is much better than the majority of blue plums, and worthy of cultivation." Trees raised in our collection from the buds sent by Mr. Taintor, from some cause or other, have not yet borne any fruit, and we are, therefore, unable to give any other account than that above referred to. We believe it, however, to be a very fine variety.—ED.

ART. V. *Pomological Gossip.*

SHENKS, HOSEN SHENCK, OR SHENCK'S AUGUST PEAR.—Messrs. Thorp, Smith, Hanchett & Co. recently sent us specimens of the pear known under the above names, which we found to be exceedingly fine, and well deserving the attention of cultivators as an early variety. Dr. Brincklé, of Philadelphia, recently brought it to notice as a new American variety, under the name of HOSEN SHENCK; and although we were tolerably well acquainted with the Shenks pear, described by the late Mr. R. Manning some years since, and cultivated by him more than a dozen years ago, we supposed this to be a different fruit. From a letter, however, received from young Mr. Manning, with specimens of the fruit, we find them to be *identical*; and in our next we shall give a copy of the correspondence between Mr. J. B. Garber and Mr. Manning, relative to this variety, as also a copy of the letter of Messrs. Thorp, Smith & Co., giving an account of its origin. In the mean time we may say that, though it has

fruited in Salem for several years, it has been considered only an ordinary pear ; but this is wholly owing to the mode of ripening. If allowed to hang upon the tree too long, it is mealy and almost worthless. If gathered *early*, it is perfectly melting and full of juice, and among the best of our August pears. Nothing can better illustrate the importance of a proper knowledge of the time of gathering fruits than the facts connected with the introduction of this fruit.

CHOICE PEARS AT THE ANNUAL EXHIBITION OF THE MASS. HORT. SOC.—The Exhibition of the Mass. Hort. Soc. on the 20th of September, was one of the most magnificent displays of pears ever made in Europe or America. Last year we thought the pear cultivation had been brought up to a high standard ; but this year quite eclipsed all previous examples of this splendid fruit. Our report in another part of our Magazine gives an account of the exhibition. We now have only space to give the names of the varieties in the collections of the twelve specimen sorts which gained the prizes :—

From W. R. Austin, *Le Curé*, *Easter Beurré*, *Duchess of Angouleme*, *Beurré d'Anjou*, *B. d'Aremberg*, *White Doyenné*, *Bezi de la Motte*, *Van Mons Leon le Clerc*, *Passe Colmar*, *Louise Bonne of Jersey*, *Bartlett*, and *Urbaniste*.

From Jos. Richardson, *Beurré d'Anjou*, *B. Easter*, *B. Diel*, *Louise Bonne of Jersey*, *Urbaniste*, *Bartlett*, *Belle Lucrative*, *White Doyenné*, *Flemish Beauty*, *Le Curé*, *Duchess of Angouleme*, and *Dix*.

From Jos. Stickney, *Louise Bonne of Jersey*, *Winter Nelis*, *Bartlett*, *Easter Beurré*, *Marie Louise*, *Le Curé*, *Beurré Diel*, *Urbaniste*, *Glout Morceau*, *Belle Lucrative*, *Thompson*, and *Flemish Beauty*.

From Hovey & Co., *Gray Doyenné*, *White Doyenné*, *Swan's Orange*, *Beurré Bosc*, *B. Diel*, *B. d'Anjou*, *Glout Morceau*, *Flemish Beauty*, *Doyenné Boussock*, *Bartlett*, *Duchess of Angouleme*, and *Louise Bonne of Jersey*.

The *Beurré Diels* and *Flemish Beauty* were 11 to 12 *inches* in circumference ; and the *White Doyenné* and *Beurré d'Anjou* 10 inches in circumference.

MISCELLANEOUS INTELLIGENCE.

ART. I. *General Notices.*

RAISING TROPZOLUM TRICOLORUM FROM SEED.—Many of our readers are aware of the great difficulty of getting seeds of this plant to vegetate. I have practised the following method for several years with constant success. Take the seeds and place them in the pans belonging to the pots commonly used in gardens, filled with water, and let them soak for two or three days, till the shell which surrounds the interior of the seed will come easily off. After removing the shell, which requires to be done with great nicety, or you will injure the principal point of the seed, prepare some pots, filled with some good rich compost, composed as follows: two parts good decayed leaf-mould, one part hazel loam, and the fourth part of equal portions of bog-earth and sand, which mix well together; fill the pots about three parts full, or rather more, of this mixture; then place the seeds on the top, (not too many, or you will not be able to remove the plant after it has formed a tuber,) and fill the remaining part with fine white sand, giving it a gentle pressing. Then remove the pots to the cool greenhouse, and place them in as shady a place as you possibly can, without anything being kept too close to them. Keep the pots always in a damp state; but mind when you sow the seed to place plenty of drainage at the bottom. As soon as some of the plants appear above the soil about one or two inches, take a small stick, and lift the seed from the soil, moving as little as possible the other soil, or you will injure the remaining seeds. Pot the young plants into the size pots called thumbs, which afterwards treat the same as for old plants in a growing state. The seedlings thus raised will flower the succeeding summer, and the year following make good established plants. Should any further remarks on them be required, I should be very glad to send them.—(*Flor. Cab.*, 1853, p. 181.)

MANAGEMENT OF AZALEAS.—The splendid specimens which are exhibited in and round London, of the *Azalea indica*, being much superior to any I have seen at the country shows, induces me to send the particulars of culture.

As soon as the plants have done flowering, if shifting is necessary, prepare some compost mould for them in the following proportions:—two-thirds bog earth, one-third well decomposed tree-leaf mould, and one-twelfth sharp silver sand; they must not be sifted, but well chopped and broken with the spade; any lumps remaining may be broken with the hand. Having a pot a size larger than the one the plant to be shifted has been growing in, and washed clean inside and out, then proceed to pot the plant, taking care the drainage is well attended to, for on this depends in a very great measure the success of the plant. In potting, I think it an advantage to place the centre of the ball rather lower than the mould at the outside of the pot, and form, as it were, a little basin inside, as by this means the whole mass of roots is benefited by the water given from time to time; and if the drainage is effectually performed, the water will pass through as free-

ly and quickly as when the plant is potted high in the pot. The plants being potted, place them in the stove, where attention must be paid to watering when necessary. They will be very much benefited by being syringed all over at least once a day; and in sunny days they will require to be syringed three or four times each day. With this treatment they will grow amazingly, and in the course of six or eight weeks will have made shoots from three to nine inches in length. They must be kept in the stove till the flower-buds for the ensuing year have attained the size of a small pea, which can easily be ascertained by feeling the ends of the shoots; they should then be placed in the greenhouse for ten days or a fortnight to harden, when, if the weather is suitable, they may be placed out-of-doors in a cool, airy situation, till the time for taking in the general stock of greenhouse plants.

Where the plants have bloomed so profusely as almost to exhaust them, tie some moss round the principal stems, and keep it constantly moist; this will cause them to break regularly and grow freely.

Where there is not the convenience of a stove, I would recommend that the plants be kept in the greenhouse till the buds are well set; and should this happen so late that there are but two or three weeks for them to have the advantage of the open air, still setting them out will be found highly serviceable.

If the foregoing particulars are attended to, the roots will be emitted in such abundance as completely to fill the pots; and instead of being liable to perish from over-watering, it will be almost impossible to give them enough, the close mass of thirsty roots absorbing an almost incredible quantity of moisture. Treated as above described, all the species and varieties of this splendid tribe will answer the most sanguine wishes and expectations of the cultivator; and I think it is impossible to bloom some of the sorts properly, as *Smithii*, and others, under any other mode of treatment:—instead of producing here and there a flower, as is often the case, the plants will be one entire mass of bloom, expanding their brilliant flowers from two and a half to three inches across, and commanding the admiration of all who behold them.

Where it is required, and the stock of plants is sufficient, the blooming season may be protracted from September till June, affording charming ornaments for autumn, winter, and spring.—(*Flor. Cab.*, 1853, p. 210.)

ART. II. Domestic Notices.

THE AMERICAN SYSTEM OF GLAZING.—Dear Sir: It is so evident that Mr. Leuchars cannot give the explanation we seek, that not to leave him the shadow of an excuse, you were perfectly right in giving him my name. Still, he had no claim to it. I *never* withhold my name from statements of *fact*. An *inquiry* is another affair. I adopted the anonymous

in this case for two reasons: first, to avoid the appearance of a notoriety-seeking I am conscious of not wanting, and which has already disgusted me; and second, because the reason for my taking up Mr. L. could not appear without my avowing myself as the author of the original paper in the *Florist* No. 8. That paper was written to appear as the Editor's. On calling at the office one morning, the Editor was suffering from severe illness, and not to keep the printer at a stand, I wrote that paper there for him, merely marking it with an *. I did not wish to take back credit which I had voluntarily given to another, yet had sufficient interest in it to look after its honor. Hence you will understand the origin of the "Beta" letter. In reply to that letter, and your remarks thereon, a writer comes forward, and, like a young lady just loose from a boarding school, is "surprised at our ignorance." When we complain—perhaps indignantly, and, if so, most certainly justly—we are "uncourteous"; and, if we dare to appeal from the presumptuous judgment of one individual to the authority from whence he professes to derive his information, we are "impeaching his veracity"! I stated in my paper that, in the system of glazing I described, the rebates were first painted, the glass laid in, each pane fastened in with tin glazing brads, and then painted in instead of puttied. Mr. Leuchars says this is an old and well known system, and that he is "surprised at our ignorance." Instead of repeating our demands on Mr. L. for evidence, let us sit down quietly in the corner like good boys, confessing our ignorance, assured that it cannot be otherwise since Mr. Leuchars says so.

Since we are on the subject of glazing, I may as well observe, that glazing "without putty" is not new, as probably you and every other person acquainted with the history of iron houses are aware. In these structures expensive sheets of plate glass are very commonly used, and provision has to be made against breakage, through the expansion and contraction of the metal by changes of temperature. In these cases the glass is *screwed* in, a thin plate being laid over the glass. As I like to give references, I will choose one in Mr. Leuchars' own district, as he may probably have seen it. I refer to the Marquis of Tweeddale's, at Yester, under the management of Mr. William Shearer. If he has not seen this, he may have been in London and seen the system carried out in the large Palm house at Kew. I have paid much attention to the various systems of glazing for some years, and if the system I have styled American has been published before in any respectable journal, I have singularly overlooked it, and when pointed out to me, shall, like Mr. L., "be surprised at my ignorance."—BETA. *Philadelphia.*

Our Orchid house, though it appears to the observer as an example, having no putty on the outside, is not exactly so, as the glass was originally *bedded* in putty.

BEAUTIFUL GRANITE TOWER IN MOUNT AUBURN.—A lofty and beautiful tower of hewn Quincy granite, is being erected on the summit of the highest eminence in Mount Auburn, not far from the Chapel. It is to be sixty-two and a half feet in height; the diameter at the base is twenty feet, and at the top it will be fifteen feet. At the height of forty feet, six inches,

is a gallery or projection, on the outside, three feet and nine inches in width, around which will be placed battlements, and doubtless an iron railing, so as to make a walk around the tower perfectly safe to all. Around the summit there will also be battlements and a railing, and seats for the accommodation of visitors. Beneath the projection are brackets of granite, which add to the ornamental appearance as well as the support of the structure. The ascent is by means of spiral stairs of granite, of which there are 93 in the interior. These will allow two or three persons to walk abreast, being three or four feet in width. There are three arch windows, ten feet in height; the entrance below is seven and a half feet in height, by four in width; and that opening upon the gallery is seven and a half feet, by three and a half. The blocks of granite are well laid, and the structure, when completed, will be solid, durable and beautiful.

The view from the gallery is very extensive, embracing the entire cemetery, Roxbury, Brookline, Brighton, Watertown, Charlestown, and all towns and villages for several miles around. The view from the summit will, of course, embrace a wider range. There is no observatory in this vicinity where the eye can take such an extensive survey. The tower rests upon a foundation of granite, embedded to the depth of six and a half feet; upon an area ten feet from the base, the granite flagging is five feet deep. The sides of the eminence will be graded, and three flights of steps up to the tower will be laid; the lofty trees in the immediate vicinity, which would obstruct the view from the gallery, will be levelled. The work was commenced on the 27th of June, and already the tower has reached the height of forty feet. It will be completed by the middle of September. The cost will be about \$20,000. The work is being done under contract, by Messrs. Whitcher, Sheldon & Co., of Quincy. The design was by Dr. Bigelow, of this city.—(*Chronicle*.)

ART. III. *Massachusetts Horticultural Society.*

Saturday, Aug. 13th, 1853.—Exhibited. FLOWERS: From C. Copeland, P. Barnes, J. Breck & Son, J. Nugent, E. Chamberlain, Messrs. Burr, A. Bowditch, Miss Russell, B. Harrington, J. Hovey, Winship & Co., and Hovey & Co., cut flowers, bouquets, hollyhocks, &c.

AWARD OF PREMIUMS FOR HOLLYHOCKS.

For the best twelve varieties, to P. Barnes, \$5.

For the second best, to Hovey & Co., \$4.

For the third best, to E. Chamberlain, \$3.

FAULT: [The Chairman's report for this meeting has not been received, and we are obliged to omit it.]

Sept. 20.—An adjourned meeting of the Society was held to-day,—the President in the chair. Messrs. Wight, C. M. Hovey, Story, Lovett and Breck were appointed a committee to nominate a list of officers for 1854.

Adjourned one week to Sept. 27.

Exhibited.—**FLOWERS:** The principal exhibitors were Hovey & Co., Winship & Co., Breck & Son, Miss Russell, E. M. Richards, J. Hyde & Son, P. Barnes, B. Harrington, J. Hovey, E. Chamberlain, and J. Nugent.

AWARD OF PREMIUMS FOR PHLOXES.

For the best ten varieties, to P. Barnes, \$6.

For the second best, to Hovey & Co., \$4.

For the third best, to E. Chamberlain, \$3.

GRATUITIES.—To James Nugent, \$2.

To E. M. Richards, for seedlings, \$2.

FRUIT: From J. Gordon, pears—Summer Francreal, fine, Rostiezer. From A. D. Webber, Beechwood melons. From H. Allen, apples—Sops of Wine; six dishes of grapes. From F. Tudor, basket of figs of the Brown Turkey variety, large and fine; Rostiezer pears. From S. A. Bemis, apples—Early Harvest, and Red Astrachan. From A. Newhall, Brown Turkey figs. From C. E. Grant, blackberries. From J. Richardson, 8 boxes Yellow Gage, and 8 boxes Black Imperial plums; two dishes pears. From B. Harrington, apples—5 varieties; Bartlett pears; peaches—Early Crawford, and a basket purporting to be Morris White, not true to name. From J. F. Allen, figs in variety; Coe's Transparent plums; grapes—Wilmot's B. Hamburg, Faquer, a new variety, first time of exhibition, proved fine on tasting, Black Hamburg; pears—Manning's Elizabeth.

From N. Carruth, peaches, fine. From T. Page, fine figs. From J. Lovett, Christiana melons; Early Bough apples; Rostiezer pears; Gondouin currants. From A. D. Williams, Williams apples. From J. B. Loomis, Rostiezer pears, fine. From J. Stickney, melons—Water, Musk and Christiana. From H. Vandine, plums, 10 varieties; pears—Rostiezer, Muskingum, Green Sugar, French Jargonelle, Dearborn's Seedling, two kinds for a name. From Messrs. Hovey, 19 varieties of pears, viz., D. Seedling, Supreme de Quimper, Calebasse d'Ete, Passans du Portugal, Manning's Elizabeth, Summer Francreal, New Native Seedling, Rostiezer, Golconda Nova, Brandywine, Ott's Seedling, Winship's Seedling, Tyson, Summer St. Germain, Poire de la Forêt, &c.; also, Jaques and Early Crawford peaches.

VEGETABLES.—From A. R. Pope, Old Colony Sweet corn. From J. Nugent, tomatoes. From H. Bradlee, Adams's Sweet corn, Lima beans. From A. D. Webber, Egg plant.

August 27th.—*Exhibited.* **FLOWERS:** From A. Bowditch, Miss Russell, J. Hovey, J. Nugent, C. Copeland, P. Barnes, J. Hyde & Son, Messrs. Winship, Messrs. Hovey, Messrs. Burr, and H. M. Wiswall, cut flowers, dahlias, verbenas, &c.

FRUIT: From Hovey & Co., Golconda Nova, Calebasse d'Ete, Duchess de Berri, Salvati, Brandywine, Moyamensing, St. Menin, New Native Seedling, Valle Franche, D. Boussock, Cushing, Passans du Portugal, and Dearborn's Seedling pears, and Early York peaches. From H. Vandine, Corse's Nota Bena, Huling's Superb, Ives' Seedling, Aspinwall, and 14 other vars. of plums; pears—Green Sugar of Hoyerswerda, Muskingum, Dear-

born's Seedling. From G. Merriam, pears—Bartlett, fine. From Mr. Richardson, 3 musk melons, the largest weighing 34½ pounds. From J. Nugent, pears—Bartlett and Andrews. From B. D. Emerson, grapes. From J. F. Allen, pears—Bartlett. From N. Stetson, pears—Dearborn's Seedling. From J. Lovett, blackberries; plums—Black Imperial and Green Gage; pears—Rostiezer and Tyson. From Messrs. Burr, pears—Julienne and Dearborn's Seedling.

From A. D. Webber, Beechwood melons. From E. Wight, pears—Bartlett, Julienne, Doyenné Boussock. From J. Gordon, pears—Belle Lucrative, Doyenné Boussock. From A. Dexter, Summer Francreal pears. From W. R. Austin, Summer Francreal pears, fine. From Winship & Co., pears—Winship's Seedling and Summer Bergamot. From J. Richardson, 12 dishes Black Imperial plums. From B. Harrington, apples—River, Williams, extra fine; Porter, and dish for name; peaches—Crawford's Early, &c.; pears—Bartlett and Fulton. From J. B. Moore, apples—River and Garden Royal. From H. Allen, plums—9 boxes Washington, 5 boxes Egg; apples—Porter, Summer Pearmain, and 20 dishes grapes.

AWARD OF PREMIUMS FOR FRUITS.

CHERRIES.—For the best, to G. Walsh, for new large Black Bigarreau, \$5.

For the second best, to J. B. Moore, for Black Eagle, \$4.

For the third best, to A. Bowditch, for Coe's Transparent, \$2.

BLACKBERRIES.—For the best, to J. Lovett, \$5.

For the second best, to G. Merriam, \$3.

For the third best, to C. E. Grant, \$2.

RASPBERRIES.—For the best, to J. Lovett, \$5.

For the second best, to T. Page, \$3.

For the third best, to E. Cleaves, \$2.

SUMMER PEARS.—For the best, to J. B. Loomis, for Rostiezer, \$6.

For the second best, to J. F. Allen, for Elizabeth, (V. Mons,) \$4.

SUMMER APPLES.—For the best, to B. Harrington, for Williams, \$6.

For the second best, to J. W. Foster, for Early Harvest, \$4.

GOOSEBERRIES.—For the best, to A. McLennan, \$4.

For the second best, to J. W. Foster, \$2.

CURRENTS.—For the best, to J. Lovett, for Gondouin Red, \$5.

For the second best, to G. Wilson, for White Dutch, \$3.

GRATUITY of \$3, to J. B. Moore.

APRICOTS.—For the best, to G. L. Baxter, \$5.

For the second best, to H. Vandine, \$3.

VEGETABLES.—From A. D. Webber, Old Colony Sweet corn. From B. Harrington, potatoes. From R. C. Hooper, Turnip Rooted cabbages. From H. Bradlee, Lima beans. From J. B. Moore, Old Colony corn, Sweet corn, large, 12 round; Darling's Early do. Evergreen do.; Lima beans, Turnip Blood beets, New White Transparent carrots, Green Top do.; Marceline Savoy cabbage, new variety; White Portugal onions, all fine. From Hill & Crosby, Marrow squashes, superior.

Sept. 3d.—Exhibited. FLOWERS: From D. Murray, one hundred varieties of native plants, and 14 var. of Fungi, all scientifically labelled. Cut flowers, asters, dahlias, &c., from Miss Russell, Miss Kenrick, E. M. Richards, R. Wall, J. Hyde & Son, D. T. Curtis, J. Means, A. Bowditch, C. Copeland, J. French, P. Barnes, Messrs. Winship, J. Breck & Son, and J. A. Howard.

AWARD OF PREMIUMS FOR GERMAN ASTERS.

For the best display, to A. Bowditch, \$4.

For the second best, to J. French, \$3.

For the third best, to J. Nugent, \$2.

FRUIT: The show on this occasion was one of the best ever made in the hall. The peaches were remarkably fine; the number of exhibitors was so great we have only room to enumerate a few of the principal ones:

FRUIT: From A. D. Webber, pears—Bartlett, fine; peaches—Coolidge's Favorite, extra fine specimens; melons—a hybrid between the Beechwood and Christiana. From M. H. Stimpson, plums—Jefferson, Green Gage, extra fine. From B. Harrington, pears—Doyenné Blanc, Bartlett; peaches—Crawford, and a Seedling; apples—River, Porter, extra fine. From C. S. Holbrook, grapes—Syrian and W. Frontignan; Christiana melons, and pears for name. From I. Fay, peaches in variety, well grown and finely colored; pears in variety. From T. Clapp, peaches—Early Crawford. From O. Johnson, Green Gage plums. From C. E. Grant, peaches—Bergen's Yellow, Coolidge and Crawford. From J. Lovett, Blackberries, Seedling apples; pears—Wendell, Washington; Green Gage and Reine Claude Violet plums. From H. Allen, four varieties pears, four varieties apples, and six dishes grapes. From J. F. Allen, pears—Andréws, Bartlett, Belle Lucrative; lemons and figs.

From Hovey & Co., 8 var. of peaches and 10 var. of pears. From the Pomological Garden, pears—Tyson, dish for name. From W. P. Tenney, a W. I. fruit, purporting to be tomatoes. From W. C. Strong, grapes—8 varieties; plums and nectarines in variety. From N. White, pears—Doyenné Boussock, extra fine; Heathcot, B. D'Amalis. From J. S. Cabot, 4 varieties pears. From J. V. Wellington, peaches, extra fine. From H. Vandine, pears, 9 varieties, and 11 var. plums; peaches and Early Black Cluster grapes. From E. Bradley, 12 varieties of peaches without name; nectarines—President. From G. Merriam, Bartlett pears, fine.

Fruits tested—Pears: From Hovey & Co., St. Merin, St. Dorothea, Brandywine, fine flavor, sustains its high reputation; R. Manning, an unknown variety, indifferent.

Peaches.—From H. Howe, a seedling, large and good. A. W. Stetson, a seedling, wanting in flavor. A. D. Webber, Coolidge's Favorite, the best under examination. T. Clapp, Early Crawford, good. Hovey & Co., Owen rareripe, fine.

Melons.—From A. D. Webber, a hybrid between the Beechwood and Christiana. Mr. W. furnished a large number of specimens; every one proved fully ripe and of extra fine flavor.

VEGETABLES.—From B. Harrington, potatoes—White Chenango, Black do., Worcester Seedling. From A. D. Webber, Egg plants, Old Colony Sweet corn. From P. Barnes, Cucumber Egg plants. From W. P. Tenney, tomatoes.

Sept. 10th.—Exhibited. **FLOWERS:** Fine displays of dahlias, asters, &c., were made by Hovey & Co., Winship & Co., Messrs. Burr, A. Bowditch, H. Bradlee, P. Barnes, J. Nugent, H. Bradlee, &c.

FRUIT: Another fine display of peaches was made to-day; the pears were also fine. Messrs. Hovey & Co. exhibited four var. of pears and fourteen varieties of peaches, among them the Owen, very superior. From H. Vandine, twelve var. of peaches, 12 varieties of plums, and other fruits. J. A. Stetson and J. Washburn sent extra fine specimens of the Flemish Beauty pears. From J. F. Allen, fine Tyson and other pears. Extra fine Bartlett pears, from S. Downer, Jr. Several other contributors sent very fine peaches, pears, and grapes.

TWENTY-FIFTH ANNUAL EXHIBITION, September 20, 21, 22, and 23.—The twenty-fifth annual show was held in a pavilion on Boston Common, near West street, commencing on the 20th of September. The pavilion was the same as that used in the Public Garden, in 1852, but the interior arrangements were somewhat varied from last year. The whole space, 200 feet by 100, was entirely floored over, making it warm, dry, and comfortable under foot. A row of tables ran parallel with the outside of the pavilion, on which were placed the vegetables, at the western end, and the cut flowers at the other. The other tables were 5 in number—one running through the centre, 6 feet wide, and 2½ high, were entirely devoted to specimens of plants in pots; they were well arranged, and were among the most attractive objects of the exhibition. In the middle of this table was a platform or stage, screened by the plants, and occupied by a fine band, who discoursed eloquent music throughout the exhibition, day and evening. The other tables, two on each side of the centre one, the same length, and 4 feet wide, were devoted to the fruit, and they were wholly filled with fine specimens. The four columns sustaining the pavilion in the middle, were handsomely wreathed with evergreen, and the roof overhead decorated with various colored flags and banners, which gave a gay effect to the whole. The two circular stands of the society, were placed on either side of the entrance door, and were filled with the choicest cut flowers. A large circular range of gas burners over the centre table of flowers, and other smaller jets at short distances on the fruit tables, afforded a brilliant light during the evenings of the exhibition, when the pavilion presented an admirably beautiful appearance. Notwithstanding the fruit was so fine last year, it was even exceeded this. The quantity was greater, and, as a whole, much superior. Some of the specimens were truly remarkable. The *Beurré Diel*, *Louise Bonne of Jersey*, *Beurré d'Anjou*, *Flemish Beauty*, &c., were very splendid. So many fine sorts were shown, that we shall not attempt to enumerate but a very few of them. Capt. Austin had some very extra *Duchess*. Jos. Richardson, extra fine *Beurré d'Anjou*. Mr. Walker, superior *Beurré Diel*. Mr. Wilder, very handsome *Beurré Superfine*; and

Messrs. Hovey & Co., remarkable White and Gray Doyennés, the former measuring ten inches in circumference. The apples were very ordinary, but as an exception, Mr. Stickney sent some superb Gravenstein, which carried off the premium. W. H. Simpson also had a fine dish of 20-ounce apples. The grapes were much finer than last year. Mrs. Durfee, of Fall River, and W. C. Strong both presented splendidly colored and well ripened specimens. Peaches were nearly gone, owing to the lateness of the season, but J. Hill had some fine Crawford's Late, and Messrs. Hovey & Co. four kinds, very handsome.

The exhibition was well attended, and upwards of 8000 persons, besides the members of the society and invited guests, visited the pavilion.

PLANTS.—The display of plants, as we have already remarked, was very beautiful, and embraced some exceedingly fine specimens. Our report is so long, we have room only to notice the principal ones. From J. P. Cushing, Esq., *Aphelandra cristata*, several fine heaths, *Clerodendron infortunatum*, &c. From Hovey & Co., several fine heaths, a fine plant of *Gardenia Fortuni*, 4 feet high, and in flower; *Stephanotus floribundus*, a Funeral Cypress, (4 feet); *Russelia juncea*, &c., &c. From A. Bowditch, very fine *Ericas*, (red and white); some remarkably well grown *Achimenes*, *Dipteracanthus spectabilis*, *Veronica Andersoni*, *Cyrtocerus reflexus*, &c., &c. From Evers & Bock, several heaths, *Pentas carnea*, *Gloxinias*, *Abutilon alba*, several fine *achimenes*, &c. From T. Page, a fine lot of plants, but no list of them is recorded. From M. P. Wilder, three large *Cryptomerias*, and one Deodar cedar, (7 feet), White *abutilon*, several *achimenes*, *torenia*s, &c. From J. Nugent, six *coxcombs*, *fuchsias*, *torenia*s, *achimenes*, &c., &c. From Winship & Co., a variety of showy plants.

BOUQUETS, DESIGNS, CUT FLOWERS, &c.—From Hovey & Co., two large bouquets, for the Bradlee vases; two parlor bouquets, splendid dahlias, new verbenas, Japan lilies, new Orange globe, and German asters. From A. Bowditch, floral design, and cut flowers. From M. P. Wilder, two parlor bouquets. From B. B. Mussey, two bouquets and basket of flowers. From C. S. Holbrook, three bouquets of amaranths and grasses. From Evers & Bock, two large bouquets and two parlor bouquets. From P. Barnes, cut flowers and dahlias. From J. Hyde & Son, dahlias. From T. Page, cut flowers. From Geo. E. White, bouquet and *coxcombs*. From Messrs. Burr, design of grasses, and cut flowers in variety. From W. E. Curtis, bouquets and dahlias. From Winship & Co., two bouquets, for the Bradlee vases, and cut flowers. From J. Nugent, two bouquets, for the Society's vases; two parlor bouquets, German asters, dahlias, and cut flowers. Cut flowers, bouquets, &c., from Miss Russell, Mrs. E. A. Story, and others. From Mrs. J. Heard, *Caladium odoratum*. From D. Murray, a large variety of native plants, and specimens of dried ferns, finely arranged and correctly labelled. From C. Griffiths, fine *coxcombs*.

PREMIUMS AND GRATUITIES AWARDED FOR PLANTS, FLOWERS, &c.

PLANTS IN POTS.—For the best display, of not less than 20 pots, to J. P. Cushing, \$12.

For the second best, to Azell Bowditch, \$10.

For the third best, to Thomas Page, \$8.

For the fourth best, to Hovey & Co., \$5.

VASE BOUQUETS.—For the best pair, suitable for the Bradlee vases, to Hovey & Co., the Bradlee plate, value \$10.

For the second best, Winship & Co., \$6.

For the best pair of bouquets for the Society's vases, to J. Nugent, \$10.

PARLOR BOUQUETS.—For the best round, for parlors, to Hovey & Co., first premium, \$8.

For the second best, to James Nugent, \$6.

For the third best, to M. P. Wilder, \$5.

For the fourth best, to Evers & Bock, \$4.

CUT FLOWERS.—For the best display, to Thomas Page, \$8.

For the second best, to Winship & Co., \$6.

For the third best, to P. Barnes, \$4.

COXCOMBS.—For the best 6 pots, to J. P. Cushing, first premium of \$3.

For the second best, to Evers & Bock, \$2.

GRATUITIES. Bouquets.—To Winship & Co., T. Page, B. B. Mussey, and W. E. Carter, \$2 each. To Evers & Bock, \$5.

Plants in Pots.—To Winship & Co., M. P. Wilder, J. Nugent, and Evers & Bock, \$5 each. A. Bowditch, Double White camellia, \$3. T. S. Sullivan, for Testudinaria elephantipes, \$1. To J. Nugent, for coxcombs, \$2. N. R. Preston, fig tree, \$1. J. Nugent, Japan pea plant, \$1.

Designs.—To Miss Russell, \$3, for a floral temple, and \$2 for a floral basket.

To Miss M. A. Kenrick, for floral basket; Mrs. E. A. Story, for a basket, and C. S. Holbrook, for design of amaranths, \$2 each. Messrs. Burr, for floral vase of grasses, and horn of plenty, \$5 and silver medal.

To B. B. Mussey, for a basket, \$1.

To A. Bowditch, floral design, \$10.

To Mrs. W. Kenrick, for floral screen, \$3.

Cut Flowers.—To Hovey & Co., \$3. J. Nugent, \$3. Messrs. Burr, \$3. Mrs. J. Heard, \$1. C. Griffiths, \$1. Dennis Murray, for dried ferns, \$3, and native plants, \$5. Miss Mary Fisher, \$1. F. M. Howard, for verbenas, \$2.

Premiums were also awarded for dahlias, the report of which is deferred till our next, with the names of the prize flowers.

FRUIT: From the President of the Society, 120 varieties of pears, among them the Bonne des Zees, Fondante de Malines, Beurré Judea, Doyenné Boussock, Beurré de Montigeron, Beurré Langelier, Exquis, Las Canas, Henkel, Belle de Noel, Grand Soliel, &c., &c.

From M. P. Wilder, 310 varieties of pears, including, among others, the Beurré Superfine, Westcot, Abbott, Beurré Duhaume, Fondante Rouge, Grand Soliel, Beurré Clairgeau, Alex. Bivort, Marshal de la Cœur, Roussolet Band, Beurré Langelier, Beurré Sterkman, Laherard, Howell, Beurré

Bachelier, Walker, Woodstock, Suzette de Bavay, Triumph de Jodoigne, Doyen Dillen, Laura de Glymes, &c., &c.

From Hovey & Co., 300 varieties, embracing the Howell, Sheldon, Collins, Kingsessing, Adams, Beurré Clairgeau, Paternoster, Delices d'Hardenpont of Belgium, Grand Soliel, Poire d'Albret, Poire Cire, Bonne des Zees, Dallas, Beurré de Montigeron, Striped Duchess of Angoulême, Josephine de Malines, Moore's Pound, Vesouziere, Adele St. Denis, Marshal de la Cœur, St. Michael Archangel, Bonne de Malines, Henkel, Gray Doyenné, Suzette de Bavay, Swan's Orange, Oswego Beurré, Beurré Langelier, Suffolk Thorn, &c., &c.; also, Baldwin, Mother, Hub. Nonsuch, Porter, and ten other varieties of apples; four var. of peaches; Black St. Michael figs, and Clinton and Diana grapes.

From S. Walker, 100 varieties of pears, including Suffolk Thorn, Figue, Bonne des Zees, Lodge, Monarch, Las Canas, Josephine de Malines, Van Mons Leon le Clerc, Dunmore, &c., &c.; also, fine Gravenstein apples.

From J. Stickney, 24 varieties of pears, among them Thompson, Bonne des Zees, Van Mons Leon le Clerc, Thompson's, Fulton, Winter Nelis, Dunmore, &c.; also, fine Gravenstein apples.

From A. D. Williams & Son, 45 varieties of pears, viz., Doyenné Boussock, White Doyenné, Urbaniste, Columbia, Dix, Washington, Williams's Seedling, Golden Beurré of Bilboa, &c., &c.; also, 18 varieties of apples, viz., Gravenstein, Seaver Sweet, Hub. Nonsuch, Porter, Fall Harvey, &c.

From H. Vandine, 60 varieties of pears, viz., Oswego Beurré, Catinka, Thompson's, Gansell's Bergamot, McLaughlin, Lawrence, Beurré Bosc, Swan's Orange, Seckel, Van Mons Leon le Clerc, &c.; also, Coe's Golden Drop, Jefferson, Roe's Autumn Gage, and six other kinds of plums; Porter apples and quinces.

From A. Bowditch, 42 varieties, including the Figue, Andrews, Monarch, Andrews, St. Ghislain, Sieulle, Gray Doyenné, Marie Louise, Urbaniste, Gansell's Bergamot, Buffum, &c.; also, a choice basket of assorted fruits.

From W. R. Austin, 25 varieties of pears, among them the White Doyenné, Marie Louise, Dix, Easter Beurré, Beurré d'Anjou, Van Mons Leon le Clerc, Urbaniste, Monarch, &c.; also, Gravenstein apples.

From J. Gordon, 28 varieties of pears, viz., Andrews, Doyenné Boussock, Heathcot, Van Mons Leon le Clerc, Beurré Bosc, Golden Beurré of Bilboa, Glout Morceau, Brown Beurré, Dix, Figue, &c.; also, twenty varieties of apples, and Coe's Golden Drop, Denniston's Superb, and Frost Gage plums.

From J. S. Sleeper, 30 varieties of pears, including the Johonnot, Columbia, Andrews, Winter Nelis, Dix, Urbaniste, Van Mons Leon le Clerc, St. Ghislain, Belle Epine Dumas, Eyewood, Gansell's Bergamot, Winter Nelis, Verte longue Panache, &c.; also, Porter, Hub. Nonsuch, Baldwin, Rockingham, and Crab apples; and Crawford's Late peaches.

From J. Lovett, 25 varieties of pears, viz., Belle Lucrative, Heathcot, Edwards' Elizabeth, Beurré Bosc, Gansell's Bergamot, Beurré Diel, Fulton, Seedling, &c.; also, sixteen varieties of apples, among them the Min-

ister, Cole's Quince, Jersey Sweet, 20-Ounce, Johnson, Lovett, Drap d'Or, &c.; Coe's Golden Drop, and Semiana plums.

From N. Stetson, 25 varieties of pears, including St. Michael Archangel, Buffum, Beurré Bosc, Sieulle, Figue, Winter Nelis, &c.; also, Stetson's Seedling and Tippecanoe peaches, and Cannon Hall Muscat, Black Hamburg, Muscat of Alexandria, Rose Chasselas, and two other kinds of grapes.

From J. B. Moore, 38 varieties of apples, viz., Porter, Jewett's fine Red, Melvin Sweet, Groton Sweet, Minister, Garden Royal, Gravenstein, Bullock's Pippin, River, Fall Harvey, Am. Gold Russet, Sweet Russet, &c.; also, Heath, Cling, and Crawford Late peaches.

From W. C. Strong, 17 varieties of grapes, viz., Syrian, White Gascoigne, White, Red, Rose, and Musque Chasselas, White, Grizzly, and Black Frontignan, Zinfindal, Damascus, Muscat of Alexandria, &c.

From W. Bacon, 22 varieties of pears, viz., Dix, Sieulle, Andrews, Swan's Orange, Dunmore, Gansell's Burgamot, Monarch, Winter Nelis, &c.; also, Coe's Golden Drop, Corse's Nota Bena, and four other sorts of plums, and Crawford's Late peaches.

From J. Richardson, 16 varieties of pears, 3 of apples and Seedling grapes. From A. D. Hodges, Bartlett pears. From B. Hedge, Plymouth, 4 var. of pears. From R. W. Bowker, 2 var. of pears. From T. Waterman, Isabella and Diana grapes. From Dr. C. F. Chaplin, 2 var. of pears and 6 var. of apples. From Geo. Everett, Uvedale's St. Germain pears, (17½ ounces); Baldwin apples, and Isabella grapes. From R. Winslow, White Doyenné pears. From C. J. Hendee, 3 var. of pears. From John Cass, Isabella grapes. From W. W. Wheildon, Oldmixon peaches.

From E. W. Bull, fine specimens of his New Seedling grape. From H. Freeman, Bartlett pears. From J. A. Stetson, Flemish Beauty pears. From H. Adams, Adams pears. From I. P. Davis, Endicott pears, from the original tree. From C. M. Endicott, Endicott pears, from the original tree. From D. Holmes, Beurré d'Amalis pears. From S. H. Wait, Bartlett pears. From Mrs. E. B. Manning, 5 var. pears, peaches, and apples. From J. A. Kenrick, 7 var. of pears and 2 of peaches. From Mrs. F. Durfee, 7 var. of grapes. From Dr. N. Durfee, 5 var. of grapes.

From D. Roberts, Salem, 18 var. of pears. From A. Parker, Van Mons Leon le Clerc pears. From S. Sweetser, 5 var. of pears. From W. H. McLellan, 2 var. of pears. From A. W. Stetson, 18 var. of grapes, including his Seedlings No. 1, 2, and 3; also, Hub. Nonsuch apples. From P. R. L. Stone, Bartlett pears and Late Crawford peaches. From L. Wheeler, 3 var. of pears, and Late Crawford peaches. From P. Barnes, Beurré Bosc pears. From H. S. Hills, Bartlett pears.

From W. A. Simonds, 13 var. of pears. From H. Kellogg, Seckel pears. From B. Harrington, 9 var. of pears, 6 of apples, and 2 of peaches. From J. S. Parker, Porter apples. From T. Greenleaf, Porter apples. From S. Bridges, White Doyenné pears. From O. W. Kendall, Late Crawford peaches. From W. Smith, Fulton pears. From R. M. Copeland, Isabella and Black Hamburg grapes, open air culture, in Boston. From S. Downer, Jr., 8 var. of pears. From W. B. Kingsbury, Merriam pears. From

E. Bradbury, 6 var. of pears and 4 of peaches. From J. P. Tolman, Chelmsford pears.

From A. D. Webber, 22 var. of pears, and Beechwood and Hybrid melons. From C. J. Weinz, Bartlett pears. From C. J. Wilder, 6 var. of pears and 6 of grapes. From G. Merriam, 4 var. of pears. From J. Hyde & Son, 10 var. of apples. From N. Collins, Collins pears. From L. Blodgett, Royal Muscadine grapes. From F. M. Lord, several var. of pears and Oldmixon peaches. From W. E. Carter, Sweetwater and Isabella grapes. From J. B. Loomis, 2 var. of pears. From F. Dana, 12 var. of pears and grapes. From H. Bradlee, 12 var. of pears. From A. Lackay, 4 var. of pears, and Quetsche plums. From G. Rice, Late Crawford peaches.

From Isaac Fay, 14 var. of pears and 3 of apples. From Eb. Snow, 2 var. of pears; Coe's Golden Drop plums. From N. C. Poore, Black Hamburg grapes, open air culture. From C. E. Grant, 4 var. of grapes. From J. M. Fessenden, Wilmot's Black Hamburg grapes. From J. Breck & Son, 11 var. of grapes. From Evers & Bock, 22 var. of pears and 5 of grapes. From N. A. Crafts, 9 var. of pears. From W. M. Allen, 2 var. of pears. From C. S. Holbrook, 5 var. of pears. From N. A. Harris, 6 var. of pears, and a basket of assorted fruit. From Messrs. Burr, 30 var. of apples and 20 var. of pears. From John Hill, Late Crawford peaches in large quantity.

From R. Manning, a large and fine collection of pears, of which we have no list of the number or names.

AWARD OF PREMIUMS AND GRATUITIES FOR FRUIT.

PEARS.—For the greatest number of best grown varieties, to Messrs. Hovey & Co., first premium, the Lyman plate, \$40.

M. P. Wilder, second premium, \$20.

Best twelve varieties, 12 specimens each, first premium to W. B. Austin, \$20.

Second premium to Josiah Richardson, \$15.

Third premium to Josiah Stickney, \$12.

Fourth premium to Hovey & Co., \$8.

Best dish, 12 specimens of one variety, first premium to Josiah Richardson, for Flemish Beauty, \$6.

Second premium to Charles M. Bracket, for Seckel, \$5.

Third premium to Samuel Downer, Jr., for Louise Bonne of Jersey, \$4.

Fourth premium to Samuel Walker, for Dunmore, \$3.

APPLES.—For the best twelve varieties, of twelve specimens each, to Messrs. Burr, the Society's plate, value \$20.

Second prize to Josiah Lovett, \$15.

Third prize to A. D. Williams, \$12.

Fourth prize to B. V. French, \$8.

For the best dish of twelve specimens of one variety, first premium to J. Stickney, for Gravenstein, \$6.

Second prize to M. H. Simpson, for Twenty-ounce Pippin, \$5.

Third prize to H. Vandine, for Porter, \$4.

Fourth prize to George Everett, for Baldwins, \$3.

ASSORTED FRUIT.—For the best basket, first premium to A. Bowditch, \$10.

Second premium to Samuel Walker, \$7.

GRAPES.—For the best five varieties, two bunches each, first premium to

Mrs. F. Durfee, Fall River, \$12.

Second premium to W. C. Strong, \$8.

Third premium to Breck & Son, \$5.

For the best two varieties, two bunches each, to Nahum Stetson, \$6.

Second premium to B. D. Emerson, \$4.

Third premium to Dr. Durfee, \$2.

GRATUITIES.—To J. S. Cabot, \$20 for a fine collection of pears.

To S. Walker, R. Manning, Winship & Co. and H. Vandine, \$10 each for collections of pears.

To J. Gordon \$4, for collection of pears, and \$6 for collection of apples.

To J. S. Sleeper, \$5 for collection of pears.

To F. Dana and Dr. C. F. Chaplin, \$4 each for fine pears.

To W. Bacon, A. D. Williams & Son, and H. Bradlee, the silver medal, each, for fine pears.

To A. Parker, \$3 for Van Mons Leon le Clerc pears.

To W. C. Strong, \$10 for Design for grapes.

To John Hill, \$7 for Design for peaches.

To J. M. Fessenden and Thos. Waterman, \$5 each, for grapes.

To R. M. Copeland and N. C. Poore, \$2 each, for grapes.

To C. J. Weinz, for Bartlett pears, \$2.

To N. Collins, \$5, for Collins pears.

To B. Hedge for collection, H. Kellogg for Seckel, L. Wheeler for Louise Bonne of Jersey, J. A. Stetson for Flemish Beauty, D. Roberts for collection, Evers & Bock for collection, H. S. Hills for Bartlett, R. W. Ames for Merriam, and J. B. Loomis for collection of pears, each the Society's Bronze medal.

To B. Harrington, for Porter apples, the Bronze medal.

To Mrs. E. A. Story, for Blood peaches, \$5.

VEGETABLES.—Our report has already extended to such a length, we must omit the names of the exhibitors and the kinds, submitting only the award of the judges.

AWARD OF PREMIUMS AND GRATUITIES FOR VEGETABLES.

VEGETABLES.—For the best display and greatest variety, first premium to J. B. Moore, \$10.

Second best to Stone & Co., \$8.

Third best to A. D. Williams, \$6.

Fourth best to B. V. French, \$4.

MAMMOTH SQUASHES.—For the best, to Jas. Dunn, the Silver medal.

For the second best, to A. W. Stetson, \$3.

GRATUITIES.—Collection of squashes, to A. W. Stetson, the Society's Silver medal.

For fine collection, first premium to Hyde & Son, \$5.

Second premium to Henry Bradley, \$3.

Third premium to B. Harrington, \$2.

Egg plants, best, to B. V. French, \$1; Parker Barnes, \$1.

Lima beans, to J. B. Moore, \$2.

For fine collection, to C. S. Holbrook, \$3.

For tomatoes, to Nahum Stetson, \$1.

Fine collection, to James Nugent, \$5.

Fine collection, to Messrs. Burr, \$5.

Fine collection, to Stone & Co., \$1.

Fine collection, to Josiah Stickney, \$3.

Fine collection, to A. D. Webber, \$4.

For pumpkins, first premium to Thos. Page, \$1.

For potatoes, to C. A. Hewins, \$1; J. B. Moore, \$1.

Large pumpkins, to A. W. Stetson, Silver medal; and for two extra Cuba squashes, \$3.

For squashes, to Hyde & Son, \$1.

To Charles W. Stone, for black Spanish melons, \$4.

HORTICULTURAL OPERATIONS

FOR OCTOBER.

FRUIT DEPARTMENT.

In the neighborhood of Boston there has been a continuation of wet weather since the month of August; the latter part of September being unusually stormy and cool. The abundance of rain has started anew many trees, and we have had a full bloom on quite a number of pear trees: fruit has swelled up finely, and to a much larger size than usual: the trees have also made a fine late growth, and if dry weather succeeds to thoroughly ripen the wood, the promise of fruit another year will be very great.

GRAPE VINES in the earliest houses should now be pruned, washed, and put in order for forcing next month. Give the border a dressing of manure, which should be lightly forked in; then cover with two or three inches of manure, before the nights become cool, that the warmth of the soil may be retained. Later in the season, further protection can be given, to keep out all frost. Vines in the greenhouse will now be ripening off their wood, and air should be admitted freely in all fine weather: all green, succulent shoots not likely to mature, may be cut off, which will admit more light into the house; as the leaves turn yellow, pick them off, which will give the house a neater appearance. Vines in the cold house will now be maturing their fruit, and will require some attention; air freely in good weather, but close up early in cool weather. If any berries show signs of damping, look them over and cut them out. Vines in the open air may now be pruned of

all small green twiggy shoots and laterals, which will not mature before cold weather: this will admit the sun and air freely, and benefit the bearing wood.

PEAR TREES will now begin to drop their leaves, and all fruit should be gathered as soon as this occurs: pick in dry weather, and put them in clean dry barrels, boxes, or baskets.

PEACH TREES in pots should now be sparingly watered in order to ripen off the wood.

STRAWBERRY beds will need attention; look them over for the last time, and pull out all weeds and clip the runners.

GOOSEBERRY AND CURRANT bushes may be planted this month.

RASPBERRY AND BLACKBERRY may be set out immediately.

BUDDED TREES should be looked after: the late rains have invigorated them so much that the ties will be likely to girdle the stems; cut the ties and put on new ones, if the buds are not well inserted.

Trench and prepare ground now for transplanting next month: it will then have time to settle, and make better work.

FLOWER DEPARTMENT.

The weather of October soon becomes too chilly for tender plants, and therefore everything not perfectly secure with six or eight degrees of frost, should be got into their winter quarters. This kind of work should be begun early, that it may not be hurried up too much: every pot should be washed, top-dressed, and put in fine order: it is much better to do this before they go into the house than afterwards, as it saves time, expense, and, more than all, having a desirable arrangement for three or four weeks. Frames should be put in requisition; for many half hardy things do much better to be kept out, than to be crowded into a warm house. See that the stages, shelves, floors, &c., are thoroughly washed and cleansed.

CAMELLIAS should be nicely arranged; if the collection is small and a mixed one, give them a good position among the other kinds of plants; if large, arrange them by themselves, selecting the shadiest part of the house—if a span-roof—facing the north. They will do better than in the full sun. Thoroughly wash and syringe the foliage, and top-dress the soil.

CHRYSANTHEMUMS should now be looked after: remove them to the greenhouse or parlor before the nights become too cold, as a hard frost often pinches and injures the buds: water often with guano.

PELARGONIUMS will now need considerable care: remove them to a shelf as near the glass as possible, and water very sparingly till they get well established in their pots. If the greenhouse does not appear a good place, they may be kept in a frame, protecting with double matting in frosty nights.

SCARLET GERANIUMS, SALVIAS, STARKIAS, &c., planted out in the open ground, should be taken up and potted without delay; place in a frame till well rooted.

AZALEAS should be removed to the greenhouse or a frame: water sparingly now.

HEATHS will require to be protected from severe frosts: a frame is the best place to keep all the small sorts, as they do far better than when removed to the house, unless they can go on to a shelf near the glass. Such as are coming into bloom should be neatly staked up.

CINERARIAS, potted in August, may now have another shift into larger-sized pots: keep in a frame till cool weather.

CUTTINGS OF VERBENAS, PETUNIAS, SALVIAS, &c., should now be put in for a spring stock for bedding out.

CHINESE PRIMROSES may have a shift now into large pots, if not done last month.

AMARYLLIS BELLADONNA, and other sorts, should now be encouraged to make a fine growth, in order to have them form good flower buds.

NEMOPHILA, SCHIZANTHUS, and any other annuals for winter flowering, should now be planted.

MIGNONETTE in pots should be removed to the greenhouse.

NEAPOLITAN VIOLETS should be potted now, and protected from frost.

CYCLAMENS should be repotted soon.

GLADIOLUSES of the spring flowering kinds should be potted this month.

GLOXINIAS, done flowering, should be placed away on a dry shelf.

GESNERA ZEBRINA, and other late flowering sorts, should now be repotted and placed in the warmest part of the house.

HELIOTROPES, for winter blooming, should now be repotted, using good rich soil.

MONTHLY CARNATIONS should be repotted.

PANSIES AND DAISIES, for flowering in the greenhouse, should now be taken up and potted.

GREENHOUSE PLANTS of all kinds should be put in good order before removing to the house, repotting all that need it and top-dressing others.

FLOWER GARDEN AND SHRUBBERY.

CARNATIONS AND PICOTEEES should now be put into frames for the winter, or be reset in their flowering beds and carefully protected.

WHITE LILIES should now be planted.

DAHLIAS should be taken up before severe frosts.

GLADIOLUS, AMARYLLIS, &c., should be taken up.

PANSY SEEDS may yet be sown for new beds. New plantations may also be made by dividing the roots.

HOLLYHOCKS, Sweet Williams, Bluebells, Foxglove, and similar plants, raised from seed, should now be set out in their flowering beds.

PEONIES, of the herbaceous sorts, may now be safely transplanted.

HYACINTHS AND TULIPS may be planted this month.

HERBACEOUS PLANTS of all kinds may be taken up, divided, and reset this month.

Attend to the lawn and shrubbery: keep all the falling leaves raked up, and the walks neat and clean: take advantage of any leisure time to prune any shrubs which require it, and prepare any ground intended for planting this fall.

THE MAGAZINE OF HORTICULTURE.

NOVEMBER, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *Our American Oaks.*

WHEN we consider the grandeur, the beauty, and the longevity of the oak, we are surprised that it is so little cultivated, and so rarely to be seen except in its native forests. But when again we reflect that it is the most abundant of all the trees of temperate regions, and everywhere scattered throughout our country, our surprise is lessened, and we can at once account for its neglect. In the early history of our country, when every forest protected the savage inhabitants, the woodman's axe was a better safeguard than the soldier's rifle, and to open and clear a country was the best mode of protecting it against the wily foe of the white man. The oak, the most abundant tree, was hewn down by hundreds and thousands. Still it remained the most numerous of our forest trees. On the site of some magnificent grove rose up the neat cottage of the settler; and when shelter or shade was wanted, it was looked for in some other and less common tree than the oak. The elm and the maple supplied its place, and soon became the popular trees. An impression that the oak was a slow grower, continued to render it more objectionable, and in time it was altogether neglected. Exotics, afterwards easily attainable by increased facilities of importation, were next sought after, and the English lime, the Horse chestnut, the Lombardy poplar, the European sycamore, &c., became the common and admired ornaments of

our avenues and rural residences. Thus the popular taste continued, till the rapid change of woodland for pasture, and country for city, by our accumulating population, swept away the few remaining oaks from the environs of the populous towns, till they became, in a degree, objects of rarity. A due appreciation of their beauty then began: what was once heedlessly cut down was again carefully reared, nursed and protected; the erroneous impression as regards their growth disappeared before the science of cultivation; and now, with our pleasure grounds umbrageous with trees from the forests of Europe, of Asia, and of Africa, our planters turn with increased delight to the treasures of our own woods, and, first among them, to the majestic and beautiful oak, doubly attractive from its legendary and poetical character.

Whoever has attentively read Michaux's superb *American Sylva*, must have felt a glow of pride at the richness of our native trees. What can vie, in all that is rich in foliage, beautiful in flower, or stately in form, with the magnolias? What, in variety of leaf, elegance of fruit, and grandeur of form, with the oaks? Certainly none. The oak is, "in one word," as Loudon says, "the king of forest trees." Michaux figures *twenty-nine* species, six or eight of which are natives of the Southern States; and Nuttall, in his *Supplement*, adds figures of *six* additional kinds. A brief notice of some of the most ornamental, we have thought would be interesting to all who do not possess that work, and who wish to become familiar with them, or add them to their grounds:—

1. THE WHITE OAK, (*Quercus álba*.) This is a common and very beautiful species. It grows throughout New England, and is very abundant in Pennsylvania and Virginia. East of the mountains, says Michaux, "it is found in every soil which is not extremely dry, or subject to long inundations." It attains at full growth the height of 60 or 70 feet. The leaves are four to six inches long, and two to three inches wide, have short petioles, and are divided into oblong rounded lobes on each side, about twelve or thirteen in number; glossy green above, and pale glaucous green beneath: in the autumn they change to bright violet color, and con-

trast prettily with the deeper or lighter tints of the other species.

The tree forms a straight trunk, branching near the ground at large angles, and forming a broad massy head. "It is beautiful," says Emerson, "in every stage of its growth; at first, light, slender, delicate and waving; at last, broad, massive and grand, but always graceful."

2. **MOSSY CUP OAK**, (*Q. olivæformis*.) This is one of the most rare of our oaks. Michaux only observed it in New York, on the banks of the Hudson above Albany. The leaves are light green above, and whitish beneath, and are larger than those of the white oak; they are very deeply and irregularly cut or laciniate, with rounded lobes, so various in shape that it is difficult to find two alike. The acorns are elongated, and set in a cup of the same form, deeply fringed at the outer edge with small filaments resembling moss, from whence its name. It attains the height of 60 feet, and its secondary branches are inclined towards the ground, a peculiarity which Michaux thinks will "render it a valuable acquisition for parks and gardens."

3. **OVERCUP OAK**, (*Q. macrocarpa*.) A fine erect tree, growing in Massachusetts, though scarce, attaining the height of 50 or 60 feet, and remarkable for its very large acorns, deeply enclosed in a cup covered with prominent scales, and bordered by conspicuous flexible filaments. The leaves are also larger than any other oak in the United States, measuring often 15 inches long by 8 broad; they are notched near the summit and deeply cut below; of a rich dark green on the upper surface, and of a pale glaucous green underneath.

It is very abundant beyond the Alleghanies, where, in the fertile soils of the West, it attains its greatest beauty. There it is one of the most massive and luxuriant foliaged trees; but in our colder region, though losing some of its beauty, it is still one of the finest trees which the ornamental planter can introduce.

4. **SWAMP WHITE OAK**, (*Q. prinus tomentosa*.) Wherever oaks are seen growing in low grounds, in the vicinity of Boston, they will be found partly of this species. Within a

few rods of us are several splendid trees, 40 to 50 feet high, and of proportionate spread of limbs. In favorable places it is a most beautiful tree. The leaves are large, somewhat wedge-shaped, six inches long and three broad, dark green above, and light-colored beneath, entire towards the base, but coarsely and obtusely toothed towards the summit; at a mature age the under side is of a silvery whiteness. The acorns are large, obtuse, brownish, and set in a broad cup, more downy than those of any other oak. The branches diverge at a large angle, and form a fine broad head.

5. CHESTNUT OAK, (*Q. prinus palustris*.) A beautiful oak, scantily diffused throughout the Northern and Eastern States, but very abundant near Philadelphia and further south, extending even to the banks of the Mississippi. Mr. Emerson only found a few straggling trees in Massachusetts. With the Rock Chestnut oak it appears most abundant near Middleboro'.

Its foliage is beautiful, resembling the chestnut. The leaves are eight or nine inches long, and four or five broad, obovate and deeply toothed, light green above, and whitish below. The acorns are large, next in size to the Overcup, brown, and set in shallow cups. It has a straight, undivided trunk, and, in favorable soils, of a uniform size to the height of 50 feet, its expanded, tufted summit forming "one of the most beautiful and majestic trees in the North American forests."

6. ROCK CHESTNUT OAK, (*Q. prinus monticolor*.) This is another magnificent species, often confounded with the last named. Like it, it is sparsely diffused in New England; but quite differing from it, it is found only on rocky hills, and confined to small districts. Some fine patches of it, according to Mr. Emerson, are growing in South Attleboro' and Middleboro', and on both sides of the Connecticut River.

For symmetry of form and luxuriance of foliage, this is the finest of our American oaks. The leaves are oval, five to six inches long, and three to four broad, uniformly and obtusely toothed on each side, often ending in a hard point: they are of a smooth shining green above, and lighter beneath.

The acorns are nearly an inch long, oblong oval, and set in a spreading cup. Its adaptation to elevated situations renders it a particularly valuable tree.

7. **YELLOW OAK**, (*Q. prinus acuminata*.) A native of the Middle States, its northern limit, according to Michaux, being Pittsburgh, Pa. It attains the height of 70 to 80 feet, and "its agreeable form and beautiful foliage render it proper for the embellishment of picturesque gardens." The leaves are quite narrow, regularly toothed, and of a light green; the acorns are small, and sweeter than those of any other species in the United States. It is a fine tree.

8. **SCARLET OAK**, (*Q. coccinea*.) The Scarlet oak, says Michaux, is first seen in the vicinity of Boston, but is less abundant than in Pennsylvania, Virginia, &c. To most people this is well known as the Red oak, a name which rightly belongs to the *Quercus rubra*. It is a straight, erect, and stately tree, with large, deeply sinuated leaves, on long petioles, of a deep glossy green on both sides, changing to a rich scarlet hue, heightening by their brilliant tints our autumnal landscape,—as conspicuous among all oaks as the Scarlet maple is among the maples. It grows rapidly while young, and is every way a most beautiful tree.

9. **PIN OAK**, (*Q. palustris*.) This fine species, the last we now name, grows to the height of 60 feet, assuming a pyramidal form, and clothed with a light and elegant foliage, quite different from any of the preceding species. The leaves are smooth, of a pleasing green, supported on long petioles, and are much more deeply cut than the Scarlet oak, which they somewhat resemble. The acorns are small, round, and contained in flat cups. Michaux considers it as deserving "a conspicuous place in parks or gardens."

Loudon remarks, (*Arb. Brit.*) "that its far-extending and drooping branches and light and elegant foliage render it the most graceful of all oaks." It is the most rapid growing American species except *Q. ambigua*.

These nine species are especially deserving the attention of every lover of trees. There are several others well worthy

of introduction into our gardens, but the above comprise the most desirable. They are all easily raised from seeds, and when they cannot readily be procured, we would advise the planting of the acorns, which vegetate freely and soon make fine trees.

ART. II. *Rural Cemeteries.* By WILSON FLAGG.

THE melancholy pleasure which is excited by a view of tombs is common to men of an ordinary amount of cultivation. The cause of this pleasure it would be difficult to explain, except on the supposition that melancholy, when gently excited, is an agreeable emotion. Immediately, and for some time after the death of a friend, the grief we suffer is painful; and it is only our veneration for the dead that prevents our making a resolute effort to banish the subject of it from the mind. This painful grief seldom endures a great while, except in minds predisposed to insanity. As time wears it away, it subsides into a quiet state of the mind, which is termed melancholy by the poets, but is a very different sentiment from that to which the same term is applied by medical writers. At this later period, the remembrance of the virtues of our deceased friend, and of the many happy hours we have passed together, forms an agreeable retrospect, which is hallowed and made affecting by our subdued sorrow. It is chiefly after this lapse of time that we delight in visiting the grave of a departed friend, when we can indulge in pensive reflections without the bitterness of recent grief.

Mankind are generally horrified with anything that forcibly suggests to them an idea of death. But the contemplation of tombs gives rise to an agreeable melancholy that overcomes this natural horror of death, especially when associated with certain fanciful images emblematical of peace and immortality. This sentiment is more vividly awakened in an old graveyard than in a new one, and in a simple graveyard, surrounded by trees, than in one where the artificial objects that are placed over the dead are monuments of the wealth

and vanity of the living. People are attracted, in multitudes, to a burial-place that is covered with gewgaws and expensive follies; but they go there to gratify their curiosity, not to yield up their hearts to pensive reflection. The emblems of grief and of the relations of time and eternity are picturesque and affecting; those of vanity are grotesque and ridiculous; and when vanity is conspicuous among the tombs, the spectator turns aside with indignation and disgust.

It is not many years since our modern rural cemeteries were first established. An innate sense of the superior effect of tombs, when allied with the beautiful in nature and art, first suggested the advantage of such grounds. There was also a necessity for burying the dead of our cities in the suburbs; this latter part of their original purpose has been effected. But there are some imperfections in the manner of carrying out the original design of our rural cemeteries, which are fair subjects of criticism and satire. In many important respects, relating to their moral and religious objects, they are failures. They exhibit too many sad attempts to carry the arbitrary distinctions of social life down to the grave; and when I behold them, I am affected with a sensation of the ludicrous, which expels every feeling of sympathy or solemnity.

These imperfections exist chiefly in the character of particular objects, rather than in the general style of laying out the grounds. I do not know that the latter could be improved. The general disposition of the paths and sites would produce an admirable effect, were the objects contained within the grounds designed with equal taste. The cause of this imperfection in the details, and of the superiority of the general plan, may be apparent, when we consider that the former are the works of different individuals, many of whom must be very defective in judgment, while the latter has been almost uniformly the work of one or two persons of taste and refined education.

It is a task requiring, perhaps, the highest effort of genius to combine the works of nature and art, wherever there is a multiplicity of objects, in such a manner as to produce in the

combination a harmonious and beautiful unity. There is no place where this exercise of judgment, on the part of the artist, is so necessary, as in a rural cemetery. Sculpture might be carried to perfection in these grounds, and be made to enhance the desired effect, if the artists would always govern themselves by certain general principles. An obelisk, rising up in the centre of a grove of trees, is an object which no rules of taste would condemn. Build a fence around it, and you introduce a trifling formality, that injures the unity of expression, in the same manner as if you were to plant a border of box or a circular hedgerow about each of the trees. The most venerable ruins have always sprung from the finest styles of architecture. A chaste style of sculpture is necessary, on the same principle, to produce that union of simplicity and grandeur, without which a rural cemetery becomes a mere magnificent toy-shop.

In laying out a rural cemetery two points are to be considered: first, the general design of the whole; second, the particular design of individual objects. The general design is to impress the visitor with a profound religious sentiment, and a feeling of devout contemplation. This can only be promoted by giving to the grounds an expression of *solemnity* and *grandeur*; and these may be said to constitute the two general effects which are to be studied.

The particular design of individual objects is to perpetuate the memory of the dead; and this is best promoted by constructing the monuments and their appurtenances in a beautiful, simple and appropriate style. *Beauty, simplicity and propriety* are, therefore, some of the particular effects which ought to be studied by the artist. In this essay, I shall confine my attention chiefly to a discussion of the general effects.

Solemnity is a feeling allied to that of sublimity, and is calculated to prepare the mind to receive impressions of a religious and moral character. The architects of the magnificent cathedrals in the cities of Europe have exhibited this art to perfection, in the style of their edifices, especially of the interior, where every object serves to impress the mind of the visitor with a deep religious solemnity. The impor-

tance of producing such a state of the mind, in order to increase its susceptibility to the influence of the divine services, must be evident to all. The eloquence of the preacher, unless his performance be so low as to displease by contrast, is thereby greatly heightened: and I have no doubt that the picturesque expression of the interior of these churches has preserved in many a mind its original attachment to the services of religion, after it had become skeptical in regard to its divine origin.

I have seen no evidence that these effects were studied in designing most of the objects introduced into our rural cemeteries. The prevailing expression of the objects contained in these grounds is a passion for display and the ostentation of wealth. Probably a majority of them are mere copies of some that were first introduced. But where imitation has guided the designer, he has usually carried the defects of the model to an extreme, and has succeeded in producing no better effects than a vulgar admiration of the cost of his work, and the gratification of his own vanity.

Even at the theatre this expression of solemnity is not overlooked in the management of the scenery, whenever it is desirable to prepare the minds of the audience to be deeply moved. But we can learn this lesson without resorting to the theatre, for nature teaches it in her own wilds. The notes of birds attract comparatively but little attention, when they are singing on the trees in our unromantic yards and gardens. But when we are walking in a dark and majestic pine grove, where there is nothing to interrupt the silence except the murmurs of the wind among the branches, should the song of the hermit thrush break the general stillness, the effect is indescribable. More or less of the same influence of scenery is felt, when we compare the pleasure with which we listen to a sparrow singing upon a thorn, near a little romantic cottage in the fields, with that we experience from the notes of the same bird in a cage, or amongst the rubbish of a fashionable flower garden.

If we desire to heighten the religious influence of the objects in a cemetery, we must lay out the grounds and build

the monuments and their appurtenances in such a style as to solemnize the feelings of the spectator on his immediate entrance. This solemnity of expression in the scenery, when truly impressive, prepares the mind to feel the emotion of sublimity. This is one of the most exalted of our religious sentiments. It is produced by the contemplation of eternity and of the immensity of the universe. It is increased by all that is mysterious in the doctrines of religion, in the future condition of the soul, and the infinite attributes of the Deity. It is not necessary that one should be a believer in revealed religion, to be susceptible of such emotions, or to appreciate the benign influence of such contemplations; for this susceptibility is an innate faculty of the human mind. Were all the accompaniments of a cemetery so designed as to harmonize with these feelings, every one must be aware of the superior impressiveness of its scenery, compared with the present. Neither would these circumstances serve to diminish any other effect we might wish to attain. Indeed, when the mind is thus elevated by solemn enthusiasm, it is peculiarly susceptible of all tender and virtuous sentiments; and while the soul is thus exalted to heaven, it feels a deeper and more tender interest in the state of the dead and the welfare of the living.

Grandeur, which is the second general effect to be studied, is not identical with solemnity; but the latter is greatly promoted by the former, and the same objects are often equally promotive of each of these effects. A grand style of architecture in the interior of a church adds greatly to its solemnity, other things being equal. Very different and even opposite sentiments may be heightened by grandeur. It cannot be denied that the feeling of cheerfulness is exalted by an expression of grandeur, in the hall where a party is assembled, on a joyful or festive occasion. The merry music of the dance, and the solemn music of the Christian service, are equally enhanced by the majestic appearance of the hall in which they are performed. Whatever exalts the mind, prepares it to feel more intensely any emotion which the scenes or performances may be designed to produce. There

is no feeling or sentiment which it is desirable to cherish, that would not be heightened by a general expression of grandeur amid the scenes and objects of a rural cemetery.

The question next arises by what means these two general effects may be promoted. They come equally from the style of laying out the grounds, and from that of the objects included within them. It is evident that the desired expression cannot be produced by tombs that are covered or surrounded by ridiculous or meretricious embellishments. But there are, unquestionably, certain decorations which serve their particular purpose of beautifying the monuments, without injuring the unity of the whole scene. Such are all those emblematic designs which are characterized by simplicity. Simplicity is not the same as barrenness. If it were so, there would be more simplicity in a barren waste than in a field of shrubs and flowers. Simple ornaments are such as do not counteract the effect intended to be produced by the principal object, either by exciting opposite feelings, or by confusing the thoughts. An illustration of this principle may be drawn from music.

The accompaniments of a simple air are necessary to add grandeur to its expression. If these accompaniments are of such a character as to give the air a still greater prominence in the hearer's attention, they are compatible with the rule of simplicity. But if, while they produce no matter what pleasing effect, they drown the air, either by not harmonizing with the theme, or by exciting in the mind a different emotion from that which should be awakened by the air, the accompaniments are in bad taste, and the opposite of simplicity. The ornaments about a tomb should be emblematical or suggestive of some pleasing moral or religious truth; but like true wit, they should be obvious and intelligible, and, like a correct style of architecture, free from those trifles that serve to divert the mind from the principal design.

Nothing so greatly interferes with an expression of grandeur as a multitude of small parts. It is on this account that a grove of trees has more majesty when divested of its undergrowth than when thickly interwoven with shrubbery. In a

rural cemetery, this multiplicity of small objects cannot be entirely avoided; but it may be avoided, in a measure, by the exclusion of fences, flower beds, useless ornaments, and shrubbery, except in particular situations. By avoiding this defect, we should promote both that unity and harmony, which are so necessary to produce any desired effect whatever. In order to secure all these important objects, the grounds ought to be under the supervision of a set of trustees, who should exclude everything that would derange the harmony of the grounds by the introduction of a false ornament, like an accidental bathos in a passage of pathetic or sublime eloquence.

The ornaments of a cemetery consist of the natural and the artificial. The natural ornaments are trees, lawn, shrubbery, flowers, and diversities of surface. The artificial ornaments are monumental stones, statuary, fences and other buildings. Nothing is more grand or solemn than a venerable old wood, consisting of full-grown and perfect trees. Poets have always delighted to celebrate their solemn stillness and their venerable glooms. All kinds of trees are adapted to these scenes; but a general admixture of evergreens would add greatly to their impressiveness. On account of the sombre character of this class of trees, a grove consisting entirely of them would be gloomy in the interior. But a large proportion of evergreens is greatly productive of that seclusion, which the deciduous trees could not afford in the winter, and after the fall of the leaf.

Shrubbery must be managed with a great deal more art, as it is more apt to clash with unity in the expression of the grounds, by apparently subdividing the space into a multiplicity of parts. It ought not to be very abundant, and never so placed as to conceal the monuments and statuary. According to this rule, it is the height of absurdity to conceal these objects by enclosing them in a hedgerow. The kinds of shrubs most proper to be introduced are such as produce flowers of the least showy description. The mountain laurel, the most beautiful of our native flowering shrubs, is objectionable, because the beauty of its flowers is too glaring to

harmonize with that expression of solemnity which is requisite; for while it is desirable to give these grounds an air of cheerfulness, it is equally desirable to avoid one of gaiety and splendor.

It is so common to eulogize flowers, as the accompaniments of tombs—emblematical, as they are regarded, of our immortality, and of those virtues which serve to prepare us for the company of higher beings—that it is believed too many of them cannot be introduced into a rural cemetery. Hence we see them planted not only around the graves, but cultivated in parterres and borders, in such profusion that visitors forget to admire anything except these dazzling horticultural exhibitions. Admitting that flowers are the most beautiful objects in nature, it does not follow from this admission that they are in character in all places and situations. A simple violet growing upon the rising mound of a grave, in a country churchyard, never fails to impress the beholder with a pleasing sentiment. But it does not follow that any such sentiment would be awakened by seeing a glittering row of petunias, pinks and calceolarias, in a dug border on each side of the grave. Such a display not only fails in producing this pleasing effect, but it serves to destroy the effect of the little azure tufts of violets, that may be growing spontaneously upon the green turf of the rising hillock.

A friend of mine, who had no particular fancy for mere sentimentalities, once showed me, with great delight, a little flower of the white-weed, that had sprung up on the new-made grave of an infant son. He made no speeches on the occasion; but it undoubtedly seemed to him like a spontaneous offering of nature, who, with unseen hand, had planted this little flower to memorialize the innocence of the child, who had been thus prematurely seized by death. No such harmless and pleasing superstition could have been associated with flowers which he had planted with his own hand. The remembrance of the act of sowing the seed would effectually dissolve the charm.

After the burial of a friend, were a little wood-sparrow to perch daily on a bush by the side of the grave, and sing

there his morning and evening lays, we should be pleasingly affected by this spontaneous tribute to the memory of the deceased. Should any one, taking a hint from this romantic incident, carry out a Canary bird, and hang its cage on the branch of a tree that extended over the grave of a friend, that it might sing the requiem of the departed, who that should see it would be affected with any other emotion but that of the ludicrous? Affection, that loves to surround the dead with images borrowed from the skies, cannot be cheated by its own artifices.

There is one very simple and practicable means by which flowers may be made to spring up around a grave without resorting to cultivation. This is to procure the turfs, which are to be placed on the surface of the ground, from some wild pasture that is well sprinkled with violets, anemones, stars-of-Bethlehem, and other flowers, which are not too rank in their growth to injure the smoothness of the lawn. On beholding these, one could more easily imagine them to be the free-offerings of nature, because the means by which they are reared there would not be so apparent, as if they were exotics raised in well-spaded earth. Florists' flowers, though exceeding all others in splendor, are not so interesting or expressive, and, on this account, not so well adapted to cluster around a grave as the simple flowers of the field.

Beauty does not please in all situations; or, it would be better to say, that what is beauty in one place may be deformity in another. No person would say, that the blush on the cheek of an infant, separate from its countenance, is as beautiful as a rose; yet a perfect representation of a rose on its cheek would be a deformity, while the blush is one of the favorite marks of beauty. More than half the qualities in any object that affect us with a sensation of beauty, consist of pleasing suggestions which are forced upon the imagination: hence a beautiful color, placed where it would suggest the idea of disease or monstrosity, would disgust instead of conferring pleasure.

The flowers that are cultivated in the borders and parterres of our cemeteries are showy and splendid; but splendor does

not harmonize with the solemnity that should pervade these consecrated grounds. Did we believe the cemetery to be a mere flower garden, we could pause with pleasure to contemplate their varied tints and their dazzling brilliancy. In a burial ground, we are shocked by their appearance, as we should be by gaudy pictures of butterflies and birds of paradise on a magnificent Doric pillar of marble. The ornaments that are introduced among the tombs should be the work of the sculptor's chisel; and the simplicity and grandeur of their designs should be in consonance with the solemnity of the scenes in which they are placed.

In our modern rural cemeteries it is customary to build a fence around the spot which is appropriated to a single family. I cannot tell why this should have been done by the persons who first set the example. After the example is set, it is not difficult to account for the universal adoption of ever so ridiculous a custom. When fashion has sanctioned a practice, people will accommodate themselves to it, without regard to its needfulness or convenience. I can imagine that the fence was first erected to protect the monuments from injury. It is manifest that no such protection is at present required, because brute animals are not allowed to run at liberty in these grounds. If any injury were designed by man, the fence could not prevent it.

No fence at all ought to be admitted; because a multitude of fences, surrounding the little square enclosures, destroys the unity of the grounds. I believe it impossible to construct fences of any sort that would not injure the grandeur of the effect, except the one that encloses the whole cemetery. A fence around the several monuments must necessarily convey the idea of something set apart from the general grounds. It is pleasing to the mind to meditate on all who lie there as belonging to one great family. The sight of numerous little square yards, surrounded by a prim iron paling, suggests at once the very opposite of this. It reminds one of exclusiveness, jealousy, aristocratic pride, anything rather than that brotherly harmony and union, which are the great foundation of the Christian system.

It seems very absurd, after the designer of the grounds has tastefully laid them out, in a style the very opposite of formality, in order to insure a pleasing and picturesque effect, that individuals should deliberately destroy this whole effect, by erecting square and angular fences around the family enclosures. If these are built, the walks ought to be made in the same angular and geometrical style, for the sake of congruity. To prove this, let a plan of the grounds be drawn on paper; and any one would see, at once, that the irregular serpentine paths could never be made to harmonize with the regular squares of the family lots. The same objection might be made to the square lots, without a fence. But if these squares were marked only by slight eminences, rising by imperceptible gradations, their formality would not be sufficiently apparent to produce a harsh dissonance with the general style of the grounds.

When I look upon all these things, I do not believe them wholly the result of the sentiments they seem to express. The idea of fences may have originated partly in some such feeling in the builder of the first monuments, and was imitated by others without consideration. None can deny the impropriety of introducing into these sacred premises anything expressive of selfishness or pride, or anything that does not comport with true religious feeling. All would agree that the style of the grounds, and of the monuments of the dead, should not, by their expression, deny the doctrines of that faith in which they lived and died who are buried there.

The fashionable burial grounds in the suburbs of our cities are called rural cemeteries. A spot cannot be rural that is decorated with the ornaments that distinguish the magnificent houses of the city. If we plant a tree in an enclosure, with an iron fence around it, it does not refuse to grow. If planted in a proper soil, nature will give it vigor and beauty. But the tree cannot stamp the impress of nature upon an iron railing. The tree belongs to nature, like the bird in a cage, and that is all. In a fashionable cemetery, which is filled with the works of vanity, the trees and the flowers may yield an agreeable sensation of the country; but the simplicity of

the spot is marred by vulgar ostentation, and nature refuses to lend it those charms, which she reserves for the delight of a more simple and humble people. If, however, the sole object of the proprietor of an enclosure be to display his pecuniary resources, and not to produce an effect in harmony with that expression which ought to pervade this sacred depository, he deserves not to be spared by ridicule or satire. Let him not suppose that the sacredness of the place should preserve him from the just indignation of all true lovers of beauty and virtue. Like a coxcomb in the pulpit, he has set himself up as a mark for the sneers and contempt of the world.

One would think from the style that pervades many objects in our cemeteries, that their only purpose is to enable the living to vie with one another in the extravagance of the works which are erected over the dead; or to enable a stranger to go there and select the rich from the poor. But these things would afford a false criterion; for there are wealthy people who are possessed of taste, and there are bankrupts who are guilty of extravagance. I would select these gaudy and costly erections as proofs of vulgar improvidence and vanity rather than wealth; and of a species of improvidence which characterizes a reckless insolvent.

After one's thousands have been lavished upon a monument, which can serve only as evidence of the folly and pride of the owner, the iron fence is set up around it, like the palisades around one's front yard in the city, that the vulgar may be obliged to stand at a distance and admire it. The next generation will condemn these follies. The present generation would condemn them, had public attention been sufficiently drawn to the subject. The style that should pervade these grounds, and the character of the objects erected within them, have not been made a theme of public discussion. As soon as the people have given it their serious attention, they will perceive the absurdity of the taste that has frequently guided the artist and proprietors. They will be disgusted with their ostentation; and it will become the

fashion to labor for simplicity combined with grandeur and cheerful solemnity.

Beverly, October, 1853.

This subject will be continued in another essay, in which the style of the monuments and statuary will be discussed.

ART. III. *The Shenks Pear.* By the EDITOR.

· IN our last number, we briefly noticed this pear, specimens of which were forwarded to us in August, by Messrs. Thorp, Smith, Hanchett & Co. of Syracuse, under the name of Shenks' August, it being the same as previously described by Dr. Brincklé, of Philadelphia, as the Hosen Shenk.

Upon tasting these specimens we found them exceedingly good for an early pear, and as we then supposed it quite new, and well worthy of being made known to cultivators, we requested Messrs. T. S. H. & Co. to send us some account of its origin, &c., to accompany a description and figure of the fruit. A few days after we forwarded our note, Mr. Manning, of Salem, made us a visit, and as our conversation, among other things, turned upon the new pears, we mentioned to him that we had just tasted a fine one from Pennsylvania, called Shenk's August, which we thought likely to be a valuable early variety. He immediately remarked that he hoped it would prove better than the Old Shenks, received from Pennsylvania, which he had cultivated for ten years, and considered it nearly worthless. At once recollecting of reading a description of the Shenks, by Mr. Manning's father, some years ago, we asked him to give us a brief account of its shape, size, color, &c. His description of it corresponded so nearly with our specimens of the Shenk's August, that we thought they must be the same, and desired him to send us some of the fruit. Fortunately, on his return home, he found two pears, which he sent us. We immediately identified them as one and the same variety. We then

sent a note to Mr. Manning, requesting him to furnish us with all the particulars connected with the introduction of the pear into his father's collection. This he replied to, and enclosed us two letters from J. B. Garber, of Columbia, Pa., extracts of which we annex :—

R. MANNING, Esq. Dear Sir,—I perceive by the *N. E. Farmer*, that among other varieties of fruit, you name a pear from Pennsylvania. This is printed Sheuk's pear, which I suppose must be wrong, and believe it to be the justly celebrated Shenks pear, which was originated in this neighborhood, by an old German, of the name of Shenks. He planted three seeds found in one pit or cell of a pear, perhaps forty or fifty years ago, and all these produced trees, bearing good fruit. One of the trees was planted against the side of a smokehouse, and from that circumstance is generally known as Shenk's Smokehouse pear. The fruit is similar in quality to the Old Butter pear, (St. Michael,) but larger, melting, and very fine. The tree grows large; ripe the last of Aug. I believe it will prove superior to many of the celebrated foreign pears. If this is the pear you desire, I shall be much pleased to be the means of disseminating so valuable a fruit. By giving me instructions how to forward them, I will cheerfully send you any quantity of the grafts. Yours, respectfully, J. B. GARBER, *Columbia, Pa., May 1, 1840.*

In a subsequent letter, dated July 24, 1840, Mr. Garber writes that he had, in accordance with Mr. Manning's wishes, "sent him buds of several kinds of fruit, and among them the Shenks pear, all from bearing trees." Such is Mr. Garber's history of the Shenks pear he sent to Mr. Manning, in 1840.

We now present a copy of Messrs. Thorp, Smith, Hanchett & Co's. letter to us, giving their history of Shenk's August pear :—

MR. HOVEY. Dear Sir,—Your favor, requesting history, &c., of the Hosen Shenk pear, is received. The writer (Mr. Fahnestock) gladly and willingly complies with your request.

The Hosen Shenk pear is known by many names in Penn-

sylvania—such as Butter pear, Smokehouse, Shenks pear, Watermelon, &c. Shenk's August is a different pear, although by some called the same; it is a much more thrifty grower, with much darker wood than the Hosen Shenk. Having seen a very flattering description of this pear, by Dr. Brincklé, of Philadelphia, and having had several communications in relation to the same, from two of our Pennsylvania friends, I brought the character of the pear before our firm, and we decided last season, to propagate it largely. We now have a fair stock. The fruit you saw, was sent us from the bearing tree in Pennsylvania, from which our grafts and buds came; and we esteem it not only by far the *largest* pear of its season, but the best. It is as good as the best Swan's Orange we have ever tasted, and in our opinion, fully equal to the White Doyenné, of which it is supposed to be a seedling. Size large; very juicy; melting, and refreshing; and will be a decided favorite as soon as made known to the community.

How so large and fine a pear, ripening in August, could be confined to so limited an area, we are unable to account for. The original tree is from forty-five to fifty years old, on the farm of Mr. John Shenk, of Waver Township, Pa., who raised three trees from seeds in one pip, all of which came into bearing; one proving worthless; one a second rate fruit, and the other, the fruit we sent you, called "Hosen Shenk pear," which is still thrifty, bearing annually large crops, and growing still, near the smokehouse, from which it was long known as the *Smokehouse* pear.

Mr. Shenk is represented as a man of singular character, much devoted to raising new trees and plants, and neglected his farming operations in order to attend to the "*smelling of water.*" He went far and near for those who desired his services, and was generally very successful in finding under streams. He wore wide "*trowsers,*" and used to say, that, during his life-time, these same wide-legged pantaloons had been three times in fashion: Hence the name of "Hosen Shenk"—meaning "Breeches" Shenk. We are indebted to our friend, Mr. J. B. Garber, for the above history.

We have sent to Hon. M. P. Wilder, Luther Tucker, Esq., Dr. Wendell, P. Barry, Esq., and the Cincinnati Horticultural Society, two specimens each, of the same lot of pears sent you, and at the same time. These pears were picked green and hard, and packed in buckwheat chaff, and forwarded by express, from Pa., to us. When they arrived, unfortunately the chaff imparted to them quite a musty taste, and they were by no means a true test. Our friend also apologizes for the size being small, as the tree had a very heavy crop on it. Very respectfully, THORP, SMITH, HAN-CHETT & Co., *Syracuse, Sept. 12th, 1853.*

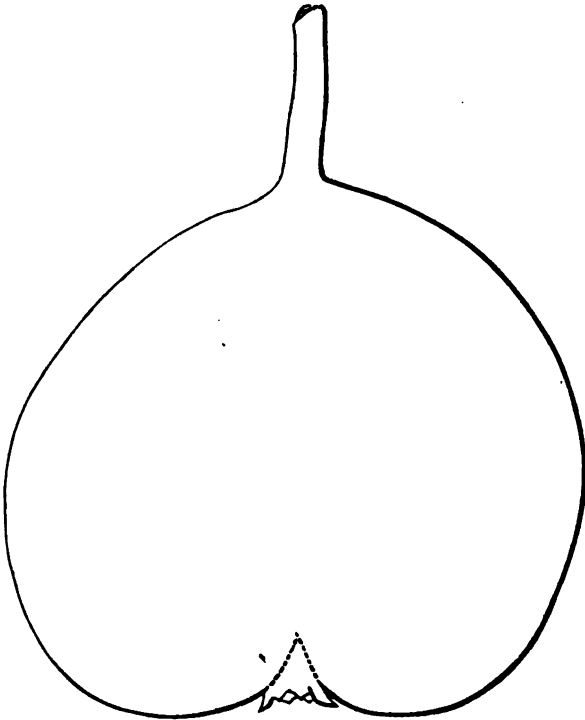


Fig. 37. The Shenks Pear.

This correspondence shows that the Shenks of Mr. Manning and the Hosen Shenk of Dr. Brincklé, are identical.

As we have already stated, Mr. Manning has not thought it worth growing. But this is wholly owing, we have not the

least doubt, to its having been allowed to ripen on the tree. Like all summer pears it must be gathered early and ripened in the house. It will be noticed that the pears sent to Messrs. Thorp, Smith & Co., and by them sent to us, were picked "green and hard ;" hence their excellence.

The early introduction of the pear into Mr. Manning's collection, shows the earnestness and enthusiasm with which he entered into the cultivation of this fruit. Whenever a new variety was mentioned, Mr. Manning would immediately endeavor to procure the scions, in order to identify and prove the quality of the pear. But from the accidental oversight of picking the fruit in due season, the Shenks has remained principally, if not wholly, in his collection for a dozen years, and might have remained a dozen more, but for the accidental notice of it by Dr. Brincklé, of Philadelphia. This simple fact shows how carefully we should thoroughly test every variety of fruit, before we condemn it.

We add an engraving (*fig. 37,*) and a description of the pear.

Size, large, about three inches long, and three in diameter: *Form*, roundish obovate, somewhat angular, and unevenly shaped, narrowing from the crown, which is large, into the stem: *Skin*, fair, smooth, pale lemon yellow when mature, thickly dotted with large greenish specks: *Stem*, short, about half an inch long, moderately stout, swollen and fleshy at the base, which appears a continuation of the fruit: *Eye*, large, open, and slightly depressed in a small, somewhat angular, basin; segments of the calyx broad, short and reflexed: *Flesh*, white, little coarse, but very melting, buttery and juicy: *Flavor*, vinous, sprightly and excellent, but without much perfume: *Core*, large: *Seeds*, medium size, angular, dark. Ripe in August.

We have been thus minute in our account of this pear, as it is important to prove its identity beyond doubt, and thus prevent the introduction of synonyms into our collections. It is briefly described in Downing's Treatise on *Fruits and Fruit Trees*.

ART. IV. *Floricultural and Botanical Notices of New and Beautiful Plants, figured in Foreign Periodicals; with descriptions of those introduced to, or originated in, American Collections.*

VICTORIA REGIA.—This noble aquatic has bloomed in Cincinnati, in the garden of Mr. J. Sayers, of that city, and the first flower was exhibited before the Cin. Hort. Society, at their annual Exhibition on the 21st, 22d, and 23d of September, and attracted universal attention. A large basin was fitted up to contain the leaves and the flower, which was prematurely burst open to gratify the public. A special premium of \$50 was awarded to Mr. Sayers, for his exertions in bringing forward this splendid lily.

AMERICAN VERBENAS IN ENGLAND.—A few years ago we were dependent upon England and the Continent for our entire stock of new and fine plants; but with the enthusiasm and energy of our cultivators, we shall, we trust, soon be able to reverse this order of things, as we have done in many kinds of fruits. Everybody knows how ready our transatlantic friends were to ridicule our products, at the opening of the Crystal Palace, and everybody also knows how speedily this ridicule was silenced, after the awards of the judges were made known. Our Yankee inventions carried off the gold medals, and America came out with as good a share of premiums as were obtained by any other country.

So far, very well. We have convinced the English mechanics and manufacturers that we *do* know how to make reaping machines—build yachts—and manufacture steel. They admit this. We have now to show them that we claim an equal share of skill in the production of beautiful flowers; and hereafter, Brother Jonathan will be a formidable rival in this department of horticultural art.

It is with no small degree of satisfaction that we learn this change is beginning to take place. Our native American plants have always been the most beautiful things in an English collection, prized far higher than we prize them our-

selves. But not so with our seedling flowers. We were formerly, and are now, to a great extent, supplied with new flowers, the products of foreign cultivators. But our camelias, azaleas, and many other plants, are now attracting great attention, and are obtaining a reputation abroad superior to all others.

Not long since, all our verbenas were of English origin; then we had them from France; yet we have made such progress in the growth of this fine flower, that we stand high in the production of new seedlings. A year ago, Mr. Geo. C. Thorburn, of New York, sent a parcel of our seedlings abroad, and among other cultivators, to Mr. C. Turner, the celebrated florist at Windsor.

Dr. Bliss, of Springfield, spent three or four months in Europe, the present season, and being highly interested in the growth of new plants, visited many of the largest establishments, and among them Mr. Turner's, whose collection of flowers is unsurpassed. Dr. Bliss inquired of Mr. T. the names of the best verbenas in cultivation, and particularly which was the best white. Mr. Turner immediately replied that, beyond all doubt, "Hovey's America was the best white verbenas in Europe." Dr. Bliss was somewhat surprised, but an inspection of the beds of all the different kinds, confirmed his statement. It seems to succeed admirably in the moist climate of England; and the show of flowers was unsurpassed.

The great prejudice against our productions once rubbed off, our English friends will appreciate our fine things, and we shall then begin to export, rather than import, most of the beautiful varieties which make up our choicest collections.

221. *LITTONIA MODESTA* Hook. UNASSUMING *LITTONIA*.
(Uvalariæ.) Natal.

A stove plant; growing three feet high; with yellow flowers; appearing in spring; increased by offsets; grown in light rich soil. Bot. Mag., 1853, pl. 4723.

This is a new genus, nearly allied to *Methonica*, dedicated to Dr. Samuel Litton, Prof. of Botany in the Royal Dublin Society.

It is a tall, pretty plant, with broad-lanceolate spreading sessile leaves, with parallel nerves, and with deep yellow axillary flowers. The tubers are exceedingly curious, being similar to a Spanish chestnut, and about the same size. It was detected in Natal, by J. Sanderson, Esq., and sent to Kew, where it flowered in the stove, within three months after it was planted. It will be a pretty addition to our stove plants. (*Bot. Mag.*, July.)

222. *LOPEZIA MACROPHYLLA Benth.* LARGE LEAVED LOPEZIA. (*Onagrarieæ.*) Mexico.

A greenhouse plant; growing two feet high; with crimson flowers; appearing in summer; increased by cuttings; grown in loam, leaf mould and sand. *Bot. Mag.*, 1853, pl. 4724.

A new and very pretty plant, introduced first to notice by Van Houtte, under the name of *Jehlia fuchsoides*. It has a fuchsia-like aspect, with terminal panicles of brilliant colored flowers, and ovate, acuminate leaves. It is from the same locality as the fuchsia, and requires similar treatment. (*Bot. Mag.*, July.)

223. *LI'LIIUM RO'SEUM Wall.* ROSE-COLORED LILY. (*Liliaceæ.*) Kamoan.

A half-hardy bulb; growing two feet high; with rose-colored flowers; appearing in spring; increased by offsets; grown in light rich soil. *Bot. Mag.*, 1853, pl. 4725.

A very pretty liliaceous plant, growing in a cool frame or greenhouse, and throwing up a slender stem eighteen inches high, terminating in a raceme of eight or ten large, handsome, drooping lilac flowers. It grows readily, and will be a beautiful addition to our half-hardy spring flowering bulbs. (*Bot. Reg.*, July.)

224. *AZA'LEA CRISPIFLORA Hook.* CRISPED-FLOWERED AZALEA. (*Ericaceæ.*) China.

A greenhouse shrub; growing three feet high; with crimson flowers; appearing in spring; increased by cuttings; grown in heath soil, leaf mould and sand. *Bot. Mag.*, 1853, pl. 4726.

A new and exceedingly elegant species or variety, found in China by Mr. Fortune, and sent to Messrs. Standish & Noble, of the Bagshot Nursery, in whose collection it flowered last year. The general aspect of the plant is like the *A. phœnicea*, and the flowers are somewhat similar in color; but

they appear singly at the ends of the branches, and the corollas are remarkably waved and crisped at the margin, having the appearance of being fringed. It is somewhat doubtful whether it is an original species, or a garden hybrid, though Dr. Hooker thinks, "in its large and crisped flowers, in the nature of the calyx, in the colored bracts surrounding the base of the solitary flower stalk, and the hispid ovary," it has sufficient characters to warrant its being considered a new and distinct species. It is a most beautiful plant, and its introduction of great importance, as it may enable cultivators to produce seedlings as distinctly fringed as the *Camellia fimbriata*. (*Bot. Mag.*, July.)

225. AZA'LEA AME'NA *Parson and Lindl.* BRIGHT-FLOW-
ERED AZALEA. (*Ericaceæ.*) China.

A greenhouse plant; with crimson purple flowers; growing a foot high. *Bot. Mag.* 1853, pl. 4728.

Another of the Chinese azaleas, found at Shanghae, by Mr. Fortune, and sent to Messrs. Standish & Noble. It is supposed by Mr. Fortune to be "from a country farther north than any of its race in China have been known to inhabit, or, at all events, from a higher elevation on the mountains." Plants of it stood out the whole of last winter in the Bagshot nursery, without protection, and it is expected it will prove perfectly hardy in England. Mr. Fortune pronounced it a distinct species. It has much the habit of *A. Danielsiana*, erect in its growth, with very small ovate leaves. The flowers are small, and of a rich crimson purple, and the calyx, which is large, is of the same color, giving them the appearance of being double, or "hose in hose," a peculiarity unknown in any other species. It will be a great acquisition. (*Bot. Mag.*, Aug.)

226. SEMEIA'NDRA GRANDIFLORA *Hook.* LARGE-FLOW-
ERED SEMEIANDBRA. (*Onagraceæ.*) Mexico.

A greenhouse plant; growing five or six feet high; with scarlet flowers; appearing in spring; increased by cuttings and seeds; grown in light rich soil. *Bot. Mag.* 1853, pl. 4727.

"A remarkable genus, allied to the fuchsia, with singularly formed flowers of a bright scarlet color, the calyx constituting the principal portion of the flower." It is a native of Mexico,

and is found growing at elevations of 4000 to 5000 feet above the ocean, among cupheas, lobelias, &c. It is rather slender in its habit, attaining the height of six feet, and copiously covered with its brilliant flowers, which are axillary, and clothe the terminal branches. It will undoubtedly prove a splendid plant in our climate for planting out with salvias, &c., where it will bloom all summer, as Mr. Seeman found it in flower and fruit, towards the end of 1850, on the Sierra Madre, near Mazatlan. (*Bot. Mag.*, July.)

227. RHODODE'NDRON NI'VEUM Hook. SNOWY-LEAVED RHODODENDRON. (Ericaceæ.) Sikkim Himalaya.

A greenhouse shrub; growing three feet high; with rosy lilac flowers; appearing in spring; increased by seeds and layers; grown in heath soil. *Bot. Mag.* 1853, pl. 4730.

A very pretty rhododendron, from the Himalayas, where Dr. Hooker found it growing 10,000 to 12,000 feet above the sea. He did not see it in flower, but from the seed he judged it to be a new species, which its blooming has confirmed. The leaves are covered with a "snow white, flocculent, opaque tomentum, occupying both surfaces of the very young leaf—permanent beneath—which distinguishes it from others. The flowers are of a similar tint to our *R. maximum*, but the heads are more compact, larger, and more deeply spotted with dark red. A very pretty and desirable species. (*Bot. Mag.*, Aug.)

228. GI'LIA LU'TEA Steud. YELLOW GILIA. (Polemoniaceæ.) California.

An annual; growing one foot high; with yellow flowers. *Bot. Mag.* 1853, pl. 4745.

Dr. Hooker follows Mr. Bentham, and unites the two genera of *Gilia* and *Leptosiphon*. *G. lutea* was found by Mr. Lobb in California, and seeds sent home to Mr. Veitch. It forms a gay annual. (*Bot. Mag.*, Sept.)

229. FRITILLA'RIA OXYPE'TALA Royle. SHARP-PETALED FRITILLARY. (Liliaceæ.) Kamoon.

A half-hardy bulb; growing a foot and a half high; with lilac-spotted flowers; appearing in summer; increased by offsets; grown in light rich soil.

An exceedingly pretty species of the *Fritillaria*, found in Kamoon, at an elevation of 12,500 feet, and plants of it sent

to Kew, where it flowered in June last. It succeeds well in a cool frame. The flowers are spreading, lilac, spotted with deep purple, and are solitary, terminal, and drooping. (*Bot. Mag.*, Aug.)

230. *VACCINIUM OVATUM* Pursh. OVATE-LEAVED WHORLEBERRY. (Vacciniæ.) North West America.

A hardy evergreen shrub; growing three feet high; with blush-colored flowers; appearing in June; increased by layers; grown in fine peaty soil. *Bot. Mag.* 1853, pl. 4722.

A beautiful evergreen shrub, originally found by Menzies, and introduced by Douglas. It grows on the North West Coast, from lat. 40° to 49°. The leaves are small, glossy, and the flowers, which are concealed somewhat from the foliage, are of a waxy, yellowish white, delicately tinged with pink. Coming from so far north, we think it will prove hardy, and become a valuable shrub. (*Bot. Mag.*, Aug.)

231. *PHILESIA BUXIFOLIA* Lam. BOX-LEAVED PHILESIA. (Smilacææ.) Straits of Magelhaens.

A half-hardy plant; growing three feet high; with scarlet flowers; appearing in summer; increased from cuttings; grown in rich peaty soil. *Bot. Mag.* 1853, pl. 4738.

A most beautiful plant, found in Valdivia, "at the summit of the Cordillera there, in marshy places under Alerse trees." It has long been a desideratum, till recently introduced by the Messrs. Veitch, who received it from their collector, W. Lobb, and exhibited by them at the June show at Chiswick, where it was greatly admired. It is a branching shrub, with evergreen, narrow leaves, and covered with bright crimson corols, nearly two and a half inches long, which depend from the end of every shoot. It has proved quite hardy at Exeter, but will probably require the greenhouse or frame in our climate. (*Bot. Mag.*, Sept.)

232. *IMPATIENS JERDONIÆ* Wight. MRS. JERDON'S BALSAM. (Balsaminæææ.) Madras.

A stove plant; growing six inches high; with yellow, green and crimson flowers; appearing in summer; increased from seeds and cuttings; grown in light rich soil. *Bot. Mag.* 1853, pl. 4739.

A new and curious Balsamine, with thick fleshy stems, not unlike the *Cacalia articulata*, and terminated with a large cluster of "strikingly formed flowers, which have a mixture

of green, red and yellow in them." The anterior petal is wholly red, and of remarkable shape; all of it is a sack, or, as Dr. Wight observes, there is no limb. At Kew it flowered in the greenhouse, but with us it would probably be as easily grown in the open air as the common Balsam. If not, it will be a very fine summer greenhouse plant. (*Bot. Mag.*, Sept.)

MISCELLANEOUS INTELLIGENCE.

ART. I. General Notices.

PROPAGATION OF PLANTS FROM BUDS.—In the month of March, 1852, I disbudded several plants of the "*Daphne Laureola*," and left the buds scattered on the ground beneath. A month or five weeks afterwards I was not a little surprised to find that they had almost all sent out roots. This hint induced me to make experiments upon other plants; and at the end of April I took several slips of the "*Lagerstræmia Indica*," a stove shrub, which had just burst forth, and had advanced to the length of from twelve to twenty lines, taking care to reserve with each a small portion of the parent bark. I then stripped them to the extent of seven or eight lines from the base upwards, and planted them in a pot filled to the depth of two inches with broken potsherds, and above with a compost, two years old, of willow mould, the refuse of the vintage, and pit-sand well washed. They were then well watered, and placed in a hotbed under a bell-glass, and care was taken to shade them and give them air when necessary. The first fortnight several damped off from the glass, not having been properly attended to; but on the twenty-second day after they were planted, I found that the rest had passed from the herbaceous to the half-woody state, and the terminal bud seemed to announce that there would shortly be a rise of the sap. Six days after this I pricked them out into small separate pots, and discovered that each had made a thick tuft of roots, and twenty-seven out of thirty-eight succeeded completely. I tried the same plan, and with equal success, upon four varieties of the "*Metrosideros*," upon the "*Melaleuca*," "*Clethra arborea*," and "*Magnolia grandiflora*," besides *Acacias*, *Roses*, and many other stove and greenhouse plants. By this means I have obtained a considerable number of plants fit for sale, if so inclined, in the course of twelve months, remarkable for their strength and beauty, and from eighteen to twenty-four inches in height.

This simple method, I think, may be applied to all kinds of plants; and, as I have never seen it alluded to in any horticultural work, I venture to think that, if you consider it worth publication, it may be of some service to practical gardeners.

[We have seen this method practised with admirable success in a small nursery near London.]—(*Flor. Cab.*, 1853, p. 182.)

CULTURE OF PYRAMIDAL CHINA ASTERS.—M. Truffaut, well known as a good practical horticulturist at Versailles, has published in the *Revue*

Horticole, for July, 1853, a full account of his mode of cultivating the China Aster.

He sows the seeds in the open ground, and in pots or pans under cloches, (bell-glasses) or in frames. *The sowing in the open ground* is made in good, rich, well-worked soil, in the last fortnight of March. The seeds are very thinly covered with fine, decayed, light mould, and slightly watered, then covered with bell-glasses or frames. These are covered with straw mats when the nights are cold, and slightly shaded from the sun's rays when the days are bright.

If the weather prove favorable, the plants will appear in about ten days. Air is then gradually admitted, and more fully as the plants acquire strength, in order that they may become robust. It is necessary to guard against the attacks of insects; those most to be dreaded are the wood-lice and black spiders.

The plants from this sowing will commence flowering in the beginning of August, and will continue till September; so that in order to prolong the flowering, it will be necessary to make several successive sowings, at intervals of ten or twelve days; but those sown in the end of March produce the most vigorous plants and the finest flowers.

Sown in pots or earthenware pans.—These, when the seeds are sown, are covered with a pane of glass, whitened on the upper side with chalk and water. This glass has the effect of breaking the rays of the sun, and of preserving the seeds from mice and other animals or insects, and it prevents the soil from becoming too dry. The pots are then placed in a house, with a temperature between 60° and 70°, and as near the glass as possible, or, better, in a warm frame. A little air is admitted when the plants come up, by tilting the square of glass, from which the chalk should be previously washed off, in order that the young plants may have as much light as possibly can be given them. The pane of glass is removed when the young stems grow up to it.

Pricking out in the open air.—The plants from the sowing made under bell-glasses, or in frames, between the 15th of March and the 1st of April, ought to be pricked out between the 20th of April and the 1st of May, at eight inches apart each way, in good light soil, covered with half an inch of fine leaf-mould. The plants should be carefully watered, but not at night, for the nights at this season of the year are frequently cold.

Pricking out under bell-glasses or frames.—The plants from sowings made in pots or pans, being more susceptible of drawing up than those raised in the open ground, ought to be pricked out as young as possible, or as soon as they have developed one or two leaves. Fifteen to eighteen are pricked out under one hand-glass, and from eighty to a hundred under a frame four feet, four inches square. The plants are slightly shaded from strong sun for a few days; air is gradually admitted, and when they have taken fresh hold, the glass is taken off at all times when the weather permits, for it is to be remarked that it is not employed for forcing the plants, but merely to protect them from atmospheric vicissitudes.

Final planting.—Between the 1st and 15th of June, taking advantage of cloudy weather, the plants pricked out are taken up with balls, and planted

from fifteen to eighteen inches every way apart, in soil well worked and manured with rotten dung. Basins are formed round each plant, and water is supplied several times a day when the weather is hot and dry. Twelve or fifteen days after planting, the ground is hoed, or otherwise stirred between the plants; yellow leaves are picked off; the basins are again formed, and the surface of the soil is slightly mulched. Thus treated, the plants will become perfectly fresh-rooted by the first week in July. A stick is then put to each, without which it is impossible that the stems could support fifty or a hundred large, well-expanded flowers, which will be produced on every plant.

As the proper arrangement of flowers in a garden is very important, and as a mixture of tall and dwarf varieties of different colors has a confused appearance, the seeds of the varieties of pyramidal China Asters should be gathered separately; and by marking, and sowing in regular order accordingly, the planting can be performed early, as above directed, without waiting too late to see the colors.—(*Gardeners' Chronicle*.)

ART. II. Societies.

NEW YORK HORTICULTURAL.

The annual exhibition of this society was held at Niblo's Rooms, Broadway, on the 20th, 21st and 22d of October.

The weather on the first day of the exhibition was very unfavorable, and the visitors, on this account, few; towards the close, the attendance was greater, and the interest manifested encouraging to the committee.

The display of plants, though not extensive, was choice, and several specimens were contributed unequalled at any former exhibition. The display of fruits, especially in pears and apples, was much superior to what was anticipated; and though the grapes cultivated under glass were not equal in quality to those which have been before the society on previous occasions, the bunches were large, and the quality not deficient.

PEARS.—The first premium of the silver cup was awarded to Messrs. Hovey & Co., Boston, for the best collection; second, to J. Breill, N. J.

APPLES.—For the best collection, to J. W. Baily, Plattsburg, N. Y.

GRAPES.—For the best, to Mr. Rennie, Lodi, N. J., and for the six best kinds, to the same; for the best bunch of Muscat of Alexandria, to Mr. Hoyt, Astoria.

PLANTS.—Fine displays of plants were made by Messrs. Hogg & Son, L. Menand, Albany, E. J. Woolsey, Astoria, I. Buchannan, Mr. Munn, Thos. Richardson, and others. The first premium was awarded to the collection of Messrs. Hogg & Son, which contained many fine things.

BOUQUETS.—First premium, to I. Buchannan. Best parlor bouquet, to Mrs. A. Henderson. Best basket of flowers, to George Hamlyn.

CUT FLOWERS.—Best twelve dahlias, to I. Wier Gomanus. For the best twelve verbenas, to Mr. W. Prentice. [We regret the names of the varieties are not given.—*Ed.*]

These are a few of the principal premiums, out of the great number offered by the society, and some of which were not competed for.

On the whole the exhibition was a most successful one. Much credit is due to the Committee of Arrangements, and particularly to the chairman, Mr. P. B. Mead, who has labored to build up the society. We trust he may see his most sanguine hopes of its usefulness fulfilled.

MARYLAND HORTICULTURAL.

The autumnal exhibition of this society was held in Baltimore, on the 27th, 28th and 29th September. The articles brought forward on this occasion gave evidence of improvement highly encouraging to those who take an interest in horticultural progress. The collection of fruits was not very extensive, as comparatively few have turned their attention to the cultivation of improved varieties, until very recently. The only exhibition of grapes from under glass, was contributed by Mr. Standemeyer, Gr. to G. Brown, Esq. These consisted of fair bunches of White Muscadine, Black Hamburg, Muscat of Alexandria, White Nice, Esperione, Black Prince, Grizzly Frontignan, &c. Native grapes were more profuse. There were several contributions of Black Hamburg, cultivated in the open air. The best, from Capt. A. C. Pracht, being large and fine, though deficient in color, owing, probably, to the vine being overcropped, as some have been observed here this season most beautifully colored. In this connection Capt. J. Hugg sent a sample of the Zante Currant grape, grown from plants of his own introduction; these miniature bunches were very perfect.

S. Feast & Sons communicated some fine specimens of pears—Winter Nelis, Duchess of Angouleme, Van Mons, Vicar of Winkfield, very large and perfect, Beurré Gris, Passe Colmar, Napoleon, Doyenné d'Alençon, Oken d'Hiver, and Duc de Bourdeaux, and other varieties were also superior. There were several contributions of White Doyenné, proving the estimation this variety holds being worthily bestowed. Seckel pears were inferior to those exhibited on former occasions.

There were no apples on exhibition, and only one dish of peaches, the latter very superior, single specimens weighing from 10 to 12 oz. The supply of vegetables was, as is usual here, a very prominent feature in the exhibition. There is certainly no city in the Union whose markets are so well supplied with vegetable productions as this. Were some competent pen to take up the subject and exhibit the methods and extent of market gardening in this vicinity, a series of papers might be furnished as interesting as those you published lately on "Market Gardening around London."

PLANTS AND FLOWERS.—Here also "progressive development" was visible in the superior cultivation of old, and the introduction of new, flowering plants. Mr. J. Feast had an extensive collection of newly introduced plants. We noted a few,—as, *Commersonia rugosa*, *Adánia cyanea*, *Gardenia tubiflora*, *Stephanotis Thouarsii*, *Plectranthus picta*, *Allopiæctus speciosus*, *Caladium bicolor*, *Cyrtocærus multiflora*, *Pleroma Benthamiæna*, *Posoqueria longiflora*, *Hoya picta*, *H. imperialis*, and *H. mollis*, *Quisquiditis sinensis*, *Dipladenia urophylla*, *Echites picta*, *Ceropégia elegans*, *Bauera rubiodes*, *Hovea Manglésii*, *Beaufortia splendens*, *Plumbago capensis alba*, *Anthocærus speciosa*, *Clématis indivisa-lobata*, &c.

S. Feast & Sons also had the following rare plants:—*Rhododendron Dalhouseana*, *Gardenia Stanleyana*, *Combrétum grandiflorum* and *C. Pincianum*,

Hoya imperialis and *H. cinnamomifolia*, *Allamanda Schottii*, *Clerodendron squamatum*, *Chirita Moënii*, &c.

From Dr. Edmondson's collection were many large specimens of interesting plants:—*Bonapartea juncea*, coming into flower; *Crinum amabile*, *Hoya carnosa*, *Astrapea Wallichii*, *Metrosideros speciosa*, *Chamaerops humilis*, *Dracæna ferrea*, *Cactus pereskia*, *Eugenia jambosa*, *Nepenthes distillatoria*, fine plants of the Coffee, Tea, Pepper, Banyan, Louquat, Bitter, and Sweet oranges, and many others.

From the greenhouse of Thomas Winans, Esq., were several *Epacris*, *Heaths*, *Begonias*, *Azaleas* and *Veronicas*. Messrs. Pentland sent a select assortment of hardy evergreen trees of the latest introduction. Bouquets and cut flowers were shown in great variety. The dahlias and roses included many of the newest and best kinds. Ornamental designs were as numerous and fantastical as the most enthusiastic admirer of these monstrosities could desire. S. Feast & Sons sent leaves of the *Victoria regia*; and to show the manner in which the *Paulownia imperialis* flourishes here, Mr. Lovering sent some leaves which measured 3 feet by 2.—WM. SAUNDERS, Cor. Sec.

PENNSYLVANIA HORTICULTURAL.

Ad Interim Report of the Fruit Committee for September, 1853.—The Fruit Committee respectfully report, that since the August meeting of the Society, several interesting collections of fruits from various localities, have been presented for their examination.

From P. Morris, of Westchester, two specimens of a Pear, from an old farmer, near Westchester. Size above medium, 2 13-16 inches long, by 2½ broad; obtuse pyriform; greenish yellow, with some russet markings, especially at the insertion of the stem, and a faint salmon cheek; stem 1 inch by 1-6, inserted somewhat obliquely in a small superficial cavity, russeted, and slightly plaited; calyx in a shallow basin, sometimes russeted; seed rather large, dark, flat; flesh of fine texture, buttery, melting; a little more flavor would be desirable; quality at least "good."—[The great length of the report compels us to omit all but the descriptions of the newer fruits. Ed.]

From A. L. Whitman, North Coventry, Chester Co., Pa., three varieties of *Seedling Plums*.

1. Fruit an inch and a half long, by one and a half broad; obtuse cordate, suture indistinct; red with a white bloom; stem five-eighths to three-fourths of an inch long, by one-twelfth thick, inserted in an open, moderately deep depression; flesh unadherent to the stone, of pleasant flavor, and "good" quality. This variety appears to be wonderfully productive; a twig three inches long, by one-sixth thick, contained eight plums—another two inches long, by one-fourth thick, contained seven.

2. Fruit an inch and a half long, by one five-sixteenths; obovate; purple, covered by blue bloom; stem eleven-sixteenths, by one-sixteenth; quality inferior, except for culinary purposes.

3. Only one specimen—large, one three-fourths by 1 11-16 inches; round

ish obovate; greenish yellow, mottled and dotted with white; suture broad, extending on one side from the base to the apex; stem three-fourths, by one-twelfth, inserted in a slight depression; stone partially adherent. The specimen being pulled somewhat prematurely, a correct estimate of its merits could not be formed. We are, however, inclined to think favorably of it, and should be happy to see specimens of it next season.

From T. Hancock, Burlington, N. J., three boxes containing specimens of a plum, and thirty-seven vars. of pears, among them the following:—

1. *Drap d'Or d'Esperin*—a small, round, golden yellow plum, with occasionally a few crimson dots; stone unadherent; quality "very good."

7. *Dillen or Doyen Dillen*—of large size and fine appearance, similar in form to the Hosen Shenk; three and three-eighths inches long, by three and one-fourth broad; round, obovate; greenish yellow, with spots and splashes of green russet; stem from three-fourths to one inch long, by one-fifth of an inch thick, rather fleshy at its insertion; little or no cavity; calyx open, set in a wide, shallow, sometimes russeted basin; seed ovate, brown, medium; flesh buttery, flavor pleasant, quality "very good." In the London Horticultural Society's *Catalogue*, and in Downing's *Fruit and Fruit Trees of America*, Dillen is given as a synonym of Beurré Diel. We regard it, however, as a distinct variety, ripening earlier than the latter.

18. *A Seedling from the Seckel*—originated with Wm. W. King, of Burlington, N. J.; small, roundish obovate; uniform yellow russet; stem five-eighths of an inch long, by one-eighth thick, fleshy at insertion; no cavity; calyx nearly closed, set in a superficial basin; quality inferior to the Seckel.

From S. Ott, Montgomery Co.:—

2. *Lodge Pears*—specimens remarkable fine, 3½ inches long, by 3 broad, possessing the rich, vinous flavor of the Brown Beurré; quality "very good."

3. *A large red Plum*, 1½ inches long, by 1½ broad; oblong; light red; suture extending on one side from the base to the apex; stem three-quarters of an inch long, by one-twentieth thick; flesh partially adherent to the stone; quality "very good."

1. From R. Buist, *Doyenné Robin Pear*—rather large, two and a half inches, by two and three-quarters round, bergamot shaped; greenish, covered with russet dots and splashes; stem usually very long and thick, from one and a quarter to two inches long, by one-sixth thick, inserted in a deep, narrow cavity; calyx small, set in a narrow, moderately deep basin; seed large, black; flesh melting, somewhat granular; flavor pleasant; quality "very good."

3. *Fair Maid Apple*—the only specimen on the tree; rather large, roundish-oblate, inclining to conical, beautifully and delicately striped with carmine; flavor sub-acid; quality inferior.

From Wm. G. Waring, Boalsburg, Centre Co., a box of fruit, containing specimens of 15 varieties—3 of pears, 4 of apples, and 8 of plums.

1. *The Julienné*.—Mr. Waring says this variety was introduced into Centre County from Germany, as the Summer Bonchretien. The specimens were very fine, and the quality "very good."

4. *The Sink Apple*.—Mr. Waring informs us that this native red apple "originated on the farm of the Hon. Geo. Boale, of Boalsburg. The orig-

inal tree, which is now dead, stood over a cavern into which a stream emptied—hence the name. It was famous for its constant and abundant yield of fruit, which was in great demand for cooking, and continued in use from July to October." Specimens, when received, were entirely decayed.

5. *The Summer Bell Flower*—considered, in Centre County, a superior early baking apple, and in season the last of July and August,—also entirely decayed when the box was opened.

6. *The Royal Sweet*—a large, "good," sweet apple, which is apt to fall from the tree.

7. *The Bush*—a native apple on the farm of Christian Dale, near Boalsburg, and found growing in the woods, by his father. Mr. Waring says this variety is "an excellent bearer, and a great favorite in an orchard of choice sorts." Size two and three-quarters by three inches; oblate, inclining to conical; greenish yellow, with many russet dots near the crown, and occasionally a faint blush; stem seven-eighths of an inch, by one-ninth, inserted in a deep, open, furrowed cavity; calyx very small, set in a deep, narrow, plaited basin; seed brown, broad, short; flavor pleasant; quality "very good."

8. *Early Yellow Prune*—said to have been obtained from Bedford County, many years ago, and is represented as being "a free grower, prodigious bearer, and not apt to rot." Size one and five-eighths inches, by one and one-quarter; oval, pointed at each end; stem five-eighths of an inch long, by one-twentieth thick; flesh free from the stone, flavor delicious; quality "very good."

9. *Red Prune*—also introduced into Centre County from Bedford. This variety was sent, on a former occasion, from Lancaster, under the name of "Bottle Plum." Two inches long, by one and one-eighth broad; pyriform, with a long slender neck; suture extending on one side from the base to the apex; pale red; stem one inch long, by one-sixteenth thick; a handsome plum of peculiar form and "good" quality, but said to be an indifferent bearer.

12. *The Galbraith*—an early plum, said to have originated with the late Mr. Galbraith, near Boalsburg; and is represented as being a straggling grower, but the best early plum cultivated in that vicinity. An inch and a half long, by one and five-sixteenths broad; oval, purple; stem five-eighths of an inch, by one-fourteenth; flesh tender, juicy, adherent to the stone; flavor luscious; quality "very good," if not "best."

13. *Prune Damson Plum*—one and a half inches long, one and three-sixteenths wide, one and one-sixteenth thick; flattened oval; blue; stem one and a half inches long, by one-eighteenth thick; flesh rather dry, entirely free from the stone; flavor agreeable; quality "good."

15. A variety cultivated in the neighborhood of Boalsburg, as the *Peach Plum*—from which it differs in several particulars. Large, one and three-quarter inches, by one and nine-sixteenths; oblong; salmon colored; stem three-eighths of an inch, by one-fourteenth; stone adherent, long-obovate, one and one-sixteenth inches long, five-eighths wide, and seven-sixteenths thick; of pleasant flavor; quality between "good" and "very good."

From T. M. Harvey, Jennerville, Pa., the *Beurré Oudinot*—one of the very new French pears, imported by Mr. Harvey, in 1851, and probably named in honor of Marshal Oudinot, Duke of Reggio. Size very large, three and three-eighths inches long, by two and three-fourths broad; pyramidal; yellowish green, with a brownish cheek; stem one inch long, by one-fifth thick, curved, inserted somewhat obliquely, with little or no depression; calyx of medium size, set in a wide, shallow basin; seed of a pale cinnamon color, long, acuminate; flesh of rather fine texture, juicy; flavor pleasant; quality "*very good*."

From I. B. Baxter, 3 varieties of Pears, and the Jane Peach.

2. *The Kingsessing*—specimens from a tree double worked on quince; large and fine, measuring three inches, by three and one-eighth, and weighing eight ounces. When grown on quince, the fruit is larger, broader, and more fair than that grown on pear stock; quality "*best*."

4. *The Jane Peach*, (Baxter's No. 1,)—very large and of delicious flavor; quality "*very good*."

From C. Kessler, of Reading, a box of fruit, containing a Seedling plum, a peach, an apple, and 6 varieties of pears.

From S. Jones, the *Hanover Pear*—from Hanover Furnace, N. J. These were the finest specimens of this variety that we have yet seen; some of them measuring nearly three inches long, by two and five-eighths broad. In size it is usually rather small; round obovate; green, with dull green russet markings, and a brown cheek; stem one inch, by one-ninth, inserted in a shallow cavity, usually angular; calyx open, set in a plaited, sometimes furrowed, irregular basin; seed large, plump, acuminate; flesh greenish yellow, exceedingly melting and juicy; flavor pleasant; quality "*good*."

From Dr. J. K. Eshleman, a box containing fine specimens of 12 varieties of pears, including the Diller, &c.

The Diller—size below medium; roundish-ovate, with one or more of the longitudinal depressions or sutures seen in Dearborn's Seedling; skin cinnamon russet; stem an inch to an inch and a half long, by one-seventh thick, inserted by fleshy rings without depressions; calyx open, set in a shallow, rather wide basin; seed small, dark, with an angle at the blunt extremity; flesh somewhat granular, buttery; possessing a fine perfumed flavor; quality "*very good*." Period of maturity last of August.

From Wm. S. Cleavinger, of West Philadelphia, large and fine specimens of the *Bartlett*, from his own garden, and the noble *Susquehanna* Peach, from Harrisburg, its original locality. The *Susquehanna* is a peach of the largest size, abounding in juice of a most delicious flavor; quality "*best*."

From Dr. Arrott, of this city, a *Seedling Grape*—size medium; round; greenish white; bunches small; flesh pulpy; odor peculiar; flavor pleasant; quality good; leaf trilobed.

From Gerhard Schmitz, a *Seedling Grape*—large; oval; purple; bunches loose, large; resembles the *Isabella* in appearance and flavor; quite equal to it in quality, and perhaps a little earlier.

From Mrs. J. B. Smith, 2 varieties of pears:—

1. *The Moyamensing*.—The fruit of this variety remains only a short time in perfection; but this defect is compensated by its ripening in succession, for a considerable period. When eaten at the exact moment of its maturity, the flavor is delicious, and the quality "best."

2. *Poire d'Abondance*.—This little pear is always beautiful, and a most abundant bearer; quality *sometimes* "good," *occasionally* "very good," *very often* indifferent. In the "Fruit and Fruit Trees of America," D'Abondance, D'Amour, and Ah Mon Dieu, are considered one and the same pear. In appropriating these names to a single variety, Mr. Downing followed, and was misled, by the Catalogue of the London Horticultural Society. But so far from being identical, Poire d'Amour and Poire d'Abondance are two entirely distinct varieties, differing essentially in size, form, color, and period of maturity. The fruit of the former is very large, while that of the latter is small. The error of considering them identical, probably arose altogether from the fact that the name, Ah Mon Dieu, was an acknowledged synonym of both. It is stated, however, on the authority of a distinguished French Pomologist, that this appellation was given to each for a very different reason—to one, in consequence of its beauty and productiveness—to the other, on account of its enormous size.

From W. Canby, Wilmington, Del., a *Seedling Grape*. Bunch four and a half inches long, by two and three-quarters broad, so compact as frequently to destroy the rotundity of the berry. Berry from seven-sixteenths to nine-sixteenths of an inch in diameter; roundish, inclining to oval; skin of a violet color, thickly covered with bloom, and semi-diaphanous; seed small, dark cinnamon; flesh tender, very juicy, not pulpy; flavor sweet and pleasant; quality "best" for a grape that will grow in open culture; leaf trilobed, but not deeply, interruptedly serrulate, auriculate.

Ad Interim Fruit Report for October.—The Fruit Committee respectfully report, that since the September meeting of the Society, the following fruits have been submitted to their examination:—

From A. Parker, of Moyamensing, a *Seedling Peach*, nearly three inches in diameter; roundish; dull yellow, with a reddish cheek, and so dark about the base as to appear almost black; flesh yellow, very juicy; flavor delicious; quality "very good."

From A. M. Eastwick, the *Petre Pear*, from the original tree—specimens very fine, two and three-quarters inches long, by two and one-half broad; stem variable, in one specimen five-eighths of an inch, by one sixth; in another one and one-quarter, by one-eighth; flavor luscious; quality "best."

From I. B. Baxter, the *Jane Peach*, (Baxter's Seedling No. 1); large, ten and one-half inches in circumference; roundish oblate; greenish yellowish white, with a red cheek; free; flavor delicious; quality "very good" to "best."

From Mr. Ladd, 242 Filbert st., the *Larissa*, a *Seedling pear*, of small size; obovate pyriform; greenish yellow, a good deal russeted, with a mottled red cheek; flesh rather dry; flavor saccharine and pleasant; quality *scarcely* "good."

From Peter Williamson, 296 South Second st., specimens of a *Seedling English Walnut*, of extraordinary size and excellence; two and one-sixteenth inches long, one and five-eighths wide, one and one-half thick; shell remarkable for its thinness; kernel delicious; quality "*best*." The tree sprung from an imported nut planted in 1846, and is now fifteen and one-half inches in circumference at the surface of the earth. It bore in 1852, for the first time. The attention of nurserymen is directed to this variety, which could probably be dwarfed and brought into speedy bearing by being worked on the *Juglans præpatoriensis*.

From Mrs. Geo. Liggett, 140 Christian st., the *Regnier Pear*—size full medium, two and one-half to three inches long, by two and one-half to two and three-quarters broad; some specimens weighed eight ounces; obovate; yellow, with a number of minute russet dots, and very often a brilliant carmine cheek; stem cinnamon color, three-quarters to seven-eighths of an inch long, by one-sixth thick, inserted in a rather deep, narrow cavity; calyx open, with short erect segments, set in a wide, shallow basin; seed dark, plump, acute, with an angle on one side of the blunt end; flesh fine texture, buttery, melting; flavor exceedingly luscious; quality "*best*." Under the name of White Doyenné or Butter pear, which it is to all intents and purposes, this variety has repeatedly received a premium at our annual exhibitions. And not until recently were we informed by Mrs. Liggett that it originated from seed of the Butter pear, planted about twenty-five years ago, by her grandmother, Madame Regnier. On examining the tree, which is now two feet, seven inches in circumference at the surface of the earth, there is no appearance of its having been worked. Many suckers have sprung up from the root, presenting a similarity in wood and foliage to the tree itself. The growth is more erect and the top more full and rounded than is usual with the White Doyenné. We would suggest a trial of this variety in localities where the White Doyenné has long since ceased to flourish.

From H. W. Terry, Hartford, Conn., the *Clark Pear*, a supposed seedling. Size medium, two and one-half inches by two and seven-eighths; roundish, inclining to turbinate, broad at the crown, rounded at the base; skin smooth, greenish yellow, with numerous small russet dots, and sometimes a warm salmon cheek; stem one inch by one-seventh, inserted in a very superficial depression; calyx small, closed, set in a wide, rather deep, furrowed basin; seed brown, flat, inclining to oval, with a slight angle at the blunt end; flesh fine texture, buttery, melting; flavor excellent, with a delicate aroma; quality *at least* "*very good*;" *perhaps we should not err in saying "best."* The Clark pear bears a good deal of resemblance in form, texture, flavor, and seed, to the Autumn Bergamot of Col. Carr, described in the Transactions of the National Congress of Fruit Growers, for 1849, page 72.

From Peter Raabe, four varieties of his *Seedling Grapes*. In 1845, Mr. Raabe obtained a collection of grape seed from Germany, which he planted in a bed in his garden. Many of these seeds vegetated; and as the young plants were exposed, without the slightest protection, to the inclemency of

the weather, none but the hardiest survived. Of these, the following four have already fruited, and are unquestionably varieties of great merit:—

The Brincklé—(Raabe's No. 1)—Bunch large, rather compact, sometimes shouldered; berry five-eighths of an inch in diameter, round, black; flesh solid, not pulpy; flavor rich, vinous, and saccharine; quality "*best*." Fruited in 1850 for the first time.

The Emily—(No. 2.)—Bunch large, not very compact, occasionally shouldered; berry below medium, from three-eighths to half of an inch in diameter; round; pale red; flesh very juicy, with little or no pulp; flavor saccharine and delicious; quality "*best*," for an out-door grape. Fruited in 1850 for the first time.

The Raabe—(No. 3.)—Bunch small, compact, rarely shouldered; berry below medium; round; dark red, thickly covered with bloom; flesh very juicy, with scarcely any pulp; flavor saccharine, with a good deal of the Catawba aroma; quality "*best*." Although the Raabe originated in the same bed with the Brincklé and Emily, its unequivocal Catawba flavor and native leaf induce us to believe that it sprung from a chance seed of the Catawba that had accidentally gained admission into the bed. This opinion is strengthened by the fact that the Catawba was in bearing in Mr. Raabe's garden, at the time he planted the seed he received from Germany. It fruited in 1850 for the first time.

The Clara—(No. 4.)—Bunch medium; not compact; berry medium; round; green, faintly tinged with salmon when exposed to the sun; flesh tender, juicy; flavor rich, sweet, and delicious; quality "*best*." Fruited the present season for the first time.

From B. Gulliss, the *Gorgas Peach*, two and one-half inches, by two and three-quarters; roundish, with a slight prominence at the apex; dull greenish white, clouded and blotched with red on the exposed side; cavity wide, rather deep; stone free; flesh whitish, slightly stained at the stone, juicy; flavor saccharine, and exceedingly luscious; quality "*best*;" period of maturity middle to end of September. This fine serrate variety originated with Benjamin Gulliss, N. E. corner of Pine and Schuylkill Eighth streets, from a stone of the Morris White, planted in 1846. It fruited in 1850 for the first time.

From H. B. Lindley, Athens, Ohio, enormous specimens of an apple, labelled *Rhode Island Sweet*, but which we regard as *Lyman's Pumpkin Sweet*. Some of them were more than three inches long, and nearly four wide, and weighed 17 ounces; seed small, short, plump, oval; flavor sweet and pleasant; quality "*good*."

From W. Graham, Philadelphia, the *Graham Grape*, an accidental seedling, raised by Mr. Graham. It sprung up in 1845, and fruited in 1850 for the first time. Bunch of medium size, shouldered, not compact; berry half an inch in diameter, round, purple, thickly covered with a blue bloom; contains little or no pulp, and abounds in a saccharine juice of agreeable flavor; quality "*best*." The leaf indicates its native parentage. It is probably a natural cross between the Bland and Elsinborough, both of which were in bearing in the garden where it originated.

From A. Wismer, near Norristown, Perkiomen Township, Montgomery County, the *Perkiomen Shellbark*. This is the largest variety of shellbark we have met with, measuring an inch and three-quarters long, one and five-eighths wide, and one thick; and, with the hull on, two and a half inches long, two and three-eighths wide, and one and seven-eighths thick; reversed oblong; cordate; shell thin; kernel of the "best" quality.

From W. Canby, Wilmington, Del., more specimens of that delicious seedling grape, described at the close of the ad interim report for September, and which we have since named *Delaware Burgundy*. We continue to entertain the same favorable opinion of its merits; and regard it as a decided acquisition.

From Robert Buchanan, Cincinnati, through Hugh Campbell, Esq., very fine specimens of six varieties of native grapes.

Alexander, Schuylkill Muscadelle, or Cape Grape.—Although this variety is of inferior quality for the table, the late Mr. Resor, of Cincinnati, made from it a superior wine, so similar to the *Constantia*, as to be mistaken for it by some of our best wine connoisseurs.

Mammoth Catawba.—Bunch large, shouldered, not compact; berry large, seven-eighths of an inch in diameter; round; of a deeper red, and larger size than the *Catawba*, but not so high flavored; quality "very good."

White Catawba.—Bunch small; berry large, seven-eighths of an inch in diameter; round; greenish white; inferior to the *Catawba* in flavor and quality.

Venango.—a seedling from the *Fox* grape; bunch of medium size; berry three-fourths of an inch in diameter; round; pale red; attractive in appearance; superior in the size of the bunch and in quality to its parent; quality "very good."

Ohio, or Segar Box.—Bunch rather large; berry small; superior in flavor to the same grape grown here; quality "very good."

Herbemont.—Bunch rather large; berry below medium, five-eighths of an inch in diameter; roundish, inclining to oval; specimens scarcely ripe. From this grape Mr. Longworth makes a wine of fine quality, closely resembling in flavor the *Spanish Manzanilla*.

From the Rev. S. C. Brincklé, Wilmington, Del., *Bonne de Zees*; size full medium, two and a half inches long, by two and five-eighths broad; roundish; cinnamon russet, interspersed with patches and irregular markings of fair yellow; in which respect, it bears a striking analogy to the exterior coloring of the *Uwchlaui*; stem three-fourths of an inch long, and two-ninths thick, inserted in a narrow, superficial cavity; calyx medium, set in a moderately deep, even basin; flesh fine texture, buttery, melting; flavor delicious; quality "very good," if not "best." These specimens differed in form and color from the *Bonne de Zee* we have more than once received from Boston, which was yellow and obovate.

From J. B. Baxter, a pear, labelled *Siculle*, not true to name; very large, four and one-quarter inches long, three and one-half broad, and weighing fourteen ounces; long, obovate, inclining to pyriform; greenish yellow;

stem one and one-quarter inches long, by three-sixteenths thick, and half an inch thick near its junction with the fruit, where it is very fleshy, inserted obliquely on a nearly flat surface, considerably inclined; calyx small, set in a deep, rather narrow, furrowed basin; seed pale cinnamon, (the lightness of the color being probably owing to partial decay) two-fifths of an inch long, one-fifth wide, and one-eighth thick, long, acuminate, with an angle on one side of the blunt end; flesh slightly granular, buttery, melting; flavor rich and delicious; quality "*very good*." This is probably the *Beurré Soule* shown by Mr. Robert Buist, at our annual exhibition in 1848, and which could not be recognized by our own pomologists or those of Boston, as any known variety. The tree that produced these specimens, and several more with the same label, were purchased by Mr. Buist from Thomas Landreth, who had imported them with a large collection of other kinds, from France, through the late Jno. B. Smith. But on examining the invoice, no such name as *Beurré Soule* was to be found in it. The variety, however, being considered valuable, scions of it were widely disseminated; and some were sent to Mr. Baxter. When the remaining trees, under this name, in Mr. Buist's possession, fruited, they proved to be the *Duchess d'Angouleme*. Even the identity of the first tree with the *Duchess*, may possibly be established by further investigation, although the specimens of the *Beurré Soule* exhibited in 1848 appeared to all of us a separate and distinct variety. [The *B. Soule* has long been familiar to Boston pomologists as the *Urbaniste*.—Ed.]

From Western New York, through J. B. Baxter, the *Canadaigua*; two and a half inches long, by two and a half broad; roundish, inclining to pyriform, largest in the middle; skin smooth, thin, greenish yellow; stem broken off, inserted without depression; calyx medium, set in an irregular, furrowed basin; flesh fine texture, buttery, melting, and exceedingly juicy; flavor pleasant, with a delicate aroma; quality "*very good*." These specimens differed materially in size and form, from those that were exhibited at the second session of the Congress of Fruit Growers, at Castle Garden, New York, in 1849.

From R. Buist, *Bon Chrétien de Vernois*; rather large, two and seven-eighths inches long, by two and five-eighths broad; obovate; greenish yellow, with small, greenish russet patches, and many cinnamon russet dots near the crown; stem three-fourths of an inch long, and one-sixth thick, fleshy at its junction with the branch, inserted in a small depression; calyx closed, set in a regular, rather deep basin; flesh somewhat granular, juice abundant; flavor pleasant, sprightly, with some astringency; Leroy places it among the kitchen pears, but we consider it for the table at least "*good*."

From C. Kessler, Reading, the *Ritter*, a native apple of Exeter Township, Berks County; two and a half inches long, by two and seven-eighths broad; roundish oblong; red in stripes of various hues, with many large white dots; stem short, and moderately stout, inserted in a deep, narrow cavity; calyx medium, closed, set in a deep, rather wide, basin; seed very short, plump, light cinnamon; flesh tender; flavor fine; quality "*very good*."

From W. Knabb, Oley Township, Berks County, fine specimens of the *Yost* and *Yacht* or *Jagd* apples, described in our ad interim report for December, 1852; both "*very good*" in quality, and worthy of being widely disseminated.

From C. B. Lines, of New Haven, *White's Seedling*, a native pear of Connecticut. Size medium, round-obovate; greenish yellow, sometimes russeted; stem rather long and slender, inserted somewhat obliquely into a small, fleshy excrescence; calyx open, segments short, set in a rather shallow basin; flesh of fine texture, buttery, juicy; pleasant flavor; quality "*very good*."

ART. III. Massachusetts Horticultural Society.

DAHLIA SHOW.—The Flower Committee having appointed the days of the annual exhibition as the time for awarding the prizes, the display was made on the 21st, 22d, and 23d of September, and the following is the list of awards, with the names of all the winning flowers, necessarily omitted in our last:—

PREMIUMS AWARDED FOR DAHLIAS.

SPECIMEN BLOOM.—For the best, to J. Hyde & Son, for *Admiral*, \$3.

VARIOUS COLORS.—Best *Tipped*, to F. & M. Burr, for *Star*, \$1. Best *Scarlet*, J. Hyde & Son, for *Gen. Fauchier*, \$1. Best *Striped*, to J. Hyde & Son, for *La Rosiere*, \$1. Best *Red*, to A. Bowditch, for *Joshua Longstreth*, \$1. Best *Blush*, to J. Hyde & Son, for *Zoe*, \$1. Best *Scarlet*, to J. Nugent, for *La Tour L'Auvergne*. Best *Maroon Tipped*, to J. Nugent, for *Roi de Pontelle*, \$1. Best *Dark Tipped*, to J. Hyde & Son, for *Roi de Pontelle*, \$1.

TWENTY-FOUR DISSIMILAR BLOOMS.—For the best, to Messrs. Hovey, \$7, for *Magnificent*, *Nepaulese Chief*, *Triumphant*, *El Dorado*, *Barnmaid*, *Mrs. C. Bacon*, *Laura Livingston*, *Admiral*, *Doug. Jerrold*, *Triumph de Lannoy*, *Mrs. Herbert*, *Morning Star*, *Comte de Merode*, *Aurora*, *Coquette de Peck*, *Mr. Seldon*, *La Jeanette*, *Star*, *Cleopatra*, *Leda*, *Sir C. Napier*, *Model*, *Lilliput Von Beyrout*, *Caractacus*. For the second best, to P. Barnes, \$5, for *Summit of Perfection*, *George Glenny*, *Mount Blanc*, *Beauty of Sussex*, *Box*, *Black Prince*, *Richard Cobden*, *Fame*, *Marshal Soult*, *Beauty of Hastings*, *La Tour L'Auvergne*, *Magnificent*, *Beauty of Cambridge*, *Mrs. Hansard*, *Buffalo Girl*, *Privateer*, *Queen of the East*, *Admiral*, *Miss Vyse*, *Joshua Longstreth*, *Arethusa*, *Miss Blackmore*, *Picotee*, *Unique*.

EIGHTEEN DISSIMILAR BLOOMS.—For the best, to J. Hyde & Son, \$6, for *Abbe Tassart*, *Gen. Fauchier*, *Beeswing*, *Zoe*, *Madame Zahler*, *Unique*, *Cleopatra*, *Rainbow*, *Duchess of St. Albans*, *Fame*, *Essex Champion*, *Beauty of Hastings*, *Summit of Perfection*, *King of the*

West, Highland Chief, Roi de Pontelle, Duke of Cambridge, Marchioness of Cornwallis.

For the second best, to J. Nugent, \$4, for Mr. Seldon, La Tour L'Auvergne, Madame Zahler, Roi de Pontelle, Duchess, Lady Sale, Unique, Lady Cooper, La Polka, Lady Granville, Miss Vyse, Picotee, Great Mogul, Summit of Perfection, Louis Philippe, Fairy Queen, Mount Blanc, Constantia.

TWELVE DISSIMILAR BLOOMS.—For the best, to Hovey & Co., \$5, for Mrs. Hansard, Mrs. Herbert, Abbe Tassart, Comte de Merode, Coquette de Peck, Sir R. Whittington, Admiral, Sir C. Napier, Lilliput Von Beyrout, Anrora, Morning Star, Caractacus.

For the second best, to A. Bowditch, \$3, for Duke of Cambridge, Cleopatra, Beauty of Hastings, La Tour L'Auvergne, Alice Hawthorn, Miss Vyse, Antagonist, Floral Beauty, R. Cobden, Constantia, Lady of the Lake, Queen of the East.

The flowers contained some of the best specimens ever exhibited before the Society. Some of the new French *fancy* ones, by Hovey & Co., were superb, particularly Coquette de Peck, Comte de Merode, and Triumph de Lannoy; Abbe Tassart is also a beautiful flower. The stands, generally, were exceedingly good, and the whole were well bloomed and very perfect.

Saturday, Oct. 1st.—The annual meeting of the Society, for the choice of officers, was held to-day,—the President in the chair. The polls remained open half an hour, when the following officers were declared elected:—

President—Joseph S. Cabot.

Vice Presidents—Benjamin V. French, Cheever Newhall, Edward M. Richards, Josiah Stickney.

Treasurer—William R. Austin.

Corresponding Secretary—Eben. Wight.

Recording Secretary—W. C. Strong.

Professor of Botany and Vegetable Physiology—John Lewis Russell.

Professor of Entomology—T. W. Harris, M. D.

Professor of Horticultural Chemistry—E. N. Horsford.

STANDING COMMITTEES.

On Fruits—Eben. Wight, Chairman; C. M. Hovey, Joseph Breck, W. R. Austin, W. C. Strong, F. L. Winship, A. W. Stetson.

On Flowers—Joseph Breck, Chairman; Alex. McLellan, E. A. Story, Azell Bowditch, Thomas Page, G. Everts, F. Burr.

On Vegetables—Henry Bradlee, Chairman; A. C. Bowditch, Peter Lawson, J. B. Moore.

On Library—C. M. Hovey, Chairman; W. S. King, R. M. Copeland, Samuel Kneeland, Jr., Azell Bowditch.

On Synonyms of Fruit—M. P. Wilder, Chairman; P. B. Hovey, Josiah Lovett, Samuel Walker, Eben. Wight.

Executive Committee—J. S. Cabot, Chairman; William R. Austin, Marshall P. Wilder, P. B. Hovey, Samuel Walker.

For establishing Premiums—Eben. Wight, Chairman; Joseph Breck, Henry Bradlee, Josiah Lovett, P. B. Hovey.

On Finance—Marshall P. Wilder, Chairman; Josiah Stickney, Otis Johnson.

Of Publication—Eben. Wight, Chairman; Joseph Breck, Henry Bradlee, W. C. Strong, Josiah Lovett, C. M. Hovey, F. L. Winship.

On Gardens—Samuel Walker, Chairman; W. R. Austin, F. L. Winship, Thos. Page; Eben. Wight, Joseph Breck, Henry Bradlee, *ex officio* members.

Exhibited.—**FRUITS:** From J. Lovett, fine Coe's Golden Drop plums. From H. Vandine, Catawba and Burgundy grapes. From C. E. Grant, extra fine Isabella grapes, bunches very large, and berries well colored. From W. C. Strong, nine kinds of grapes, all good. From B. D. Emerson, Black Hamburg and Wilmot's B. Hamburg grapes. From Hovey & Co., White Doyenné, (superior,) and Vesouziere pears; Diana grapes, fine. From R. M. Copeland, Isabella and Black Hamburg grapes, open culture. From E. W. Bull, Concord, specimens of his new seedling grape, which ripens four weeks before the Isabella; berries large, bunches large and fine. From S. H. Elliott, Lawrence, White Sweetwater grapes. From J. A. Stetson, seven varieties of pears, all fine. From Rev W. Barrows, Charter Oak grapes, a very large native foxy variety. R. W. Turner and N. Collins sent fine specimens of the Collins pear, the latter from the original tree.

Fruits tested.—Seedling grapes, from E. W. Bull, fully equal to specimens last year, and proves to be a remarkably early, handsome, and very superior grape. From Hovey & Co. Delices d'Hardenpont, of Angers, and Jersey Gratioli, both fine. From N. Collins and R. N. Ames, Collins pear, which fully maintained the high character heretofore given to it by the committee.

Saturday, Oct. 8.—From Hovey & Co., Gray Doyenné, (superior,) and Swan's Orange pears. From J. Dane, very fine Seckel, Swan's Orange, and Louise Bonne of Jersey pears. From H. Vandine, fine Seckel, and five other kinds of pears; grapes, plums, and Porter apples. From P. Barnes, very large clusters of the Syrian grape. From C. E. Grant, extra fine Isabella grapes. From J. A. Stetson, Beurré d'Anjou and Beurré Diel pears, both extra; also Fall Pippin (?) apples. From J. H. Noble, Baldwin apples. From L. Goodnow, Pocahontas pears, very handsome. From J. Shepherd, seedling pears. From A. Barratt, extra fine Van Mons Leon le Clerc pears. From A. W. Stetson, Seedling grapes, No. 1. From Hill & Crosby, superior Hubbardston Nonsuch apples, one measuring 13 inches in circumference. From E. Cleaves, Beurré Bosc and Marie Louise pears, extra, and two varieties grapes. From N. H. Henchman, Beurré Diel pears, fine. From J. Cass, fine Isabella grapes. From J. Lovett, Walker, fine, Gansell's Bergamot, and seedling pears, very handsome. From E. W. Bull, specimens of his new seedling grape, very large clusters, and berries jet black and beautiful.

Fruits tested.—From Hovey & Co., pears—Sheldon, delicious, very high flavor, one of the best pears tasted by the committee; Swan's Orange, fine.

From J. Lovett, pears—Seedling, handsome, medium size, melting, fine, very promising; Walker, fine. From B. D. Emerson, Seedling Black Hamburg grape, large, black, promises well. From L. Goodnow, Quincy, Pocahontas pears, handsome, crisp and good. From I. Shepherd, seedling, not in eating. From Mr. Williams, Dover street, Isabella grapes, very sweet and ripe.

Saturday, Oct. 15th.—From Clifton Rogers, pears—Van Mons Leon le Clerc, fine; Doyenné Blanc, Flemish Beauty, and Beurré Superfine. From S. A. Bemis, apples—Bottle Greening, Holmes, Lycom, Maiden's Blush, Porter, Hubbardston, Crawford Sweet, and Gravenstein. From H. Rice, Roxbury Russet, showing a freak in fruiting. From E. A. Chapin, pears—Duchess d'Angouleme, weighing 17 oz. From F. Tudor, pears—Catillac, Duchess d'Angouleme, Louise Bonne of Jersey, Columbia, Beurré Diel, Chelmsford, Bezi de la Motte, Easter Beurré, B. d'Angleterre, Urbaniste, Napoleon, Glout Morceau, Gansell's Bergamot, Doyenné Blanc, Brown Beurré, and Onondaga, nearly every variety fine; Porter apples. From J. Dane, Beurré Diel pears. From S. Downer, Jr., quinces. From D. Crehore, Diana grapes, fine. From J. Stearns, English walnuts, (grown here.) From E. M. Richards, peaches, well colored; Orange quinces. From L. Driver, pears—Beurré Bosc, extra fine. From G. Everett, Pound pears, weighing from 17 to 21 oz. each; Baldwin apples. From Z. Bates, Pound pears. From M. Davis, quinces. From J. G. Treadwell, Dix pears, fine; apples for a name. From Hovey & Co., pears—Beurré d'Anjou, Hull, Beurré Bosc and Urbaniste. From H. Vandine, pears—Buffum, Marie Louise, Seckel, Heathcot, New Long Rosewater, St. Michael, Long Green, Gendeean, Fall Vergaleu, Napoleon, Beurré Bosc, Van Mons Leon le Clerc; Apple quince.

Fruits tested.—From D. Treadwell, Salem, apple—supposed to be the Ben. From Marshall P. Wilder, pears—De Sorlus, Theodore Van Mons, good; Exquisita, good; Abbott, good; Colmar de Silly; Van Mons, 1825, good; Fondante Rouge; Catinka, good; Doyenné d'Autumn; Beurré Soulange, fine; Alexandre Lambre, fine; Belle de Noel; De Bavay, fine; Doyenné Dillen, good; B. Nantais, fine; Bergamotte Bernard, fine; De Wael, 117. From Hovey & Co., Longue de Monkowty or Beurré Judes, fine; Grand Soliel, extra fine; Hull, good; Vesouziere, fine; Paternoster, fine; Oswego Beurré, extra; Beurré Clairgeau, very fine. From A. W. Stetson, grapes—Seedling Isabella, No. 1, do. do., No. 3, similar to Isabella; Seedling B. Hamburg, similar to B. Hamburg. From Mrs. Crehore, Diana grapes, fine.

The following letter was offered and directed to be printed with the doings of the Society:—

Boston, Oct. 10th, 1853.—*My Dear Sir:* I perceive from the minutes of the Horticultural Society of Cincinnati, that the plant I considered as *Cajanus* is there called *Phaseolus*, although without any specific appellation.

This information reached me only after the flowers on my plants had completely passed away, so that, as before, I am restricted to an examine-

tion of the seed, which, however, affords characters so decidedly distinct from those of *Phaseolus*, as entirely to remove all doubt.

Phaseolus seeds—separated from each other by cellular substance, plumule foliaceous, cotyledons separate in germination, very farinaceous, rich in legumin, not oily.

Cajanus seeds—separated from each other by membrane, plumule not foliaceous, cotyledons conferruminate in germination, oily, not farinaceous, no legumin detected.

A careful examination of the hilum with a good lens indicates generic distinctions.

Yours truly,

J. TESCHEMACHER.

EBEN WIGHT, Esq., Cor. Sec. Mass. Hort. Soc.

Saturday, Oct. 22.—From J. Fisk Allen, pears—Beurré Bosc, Seckel, fine; grapes—Black Hamburg; figs—Black and White. From J. Dane, pears—Glout Morceau, Duchess of Angouleme, fine. From S. Worcester, pears—specimens of first, second and third growth in a season. From F. Dana, pears—Van Mons Leon le Clerc, Duchess of Angouleme, Seckel, fine; Seedlings Nos. 10 and 19—No. 10 proved of a fine quality. From W. R. Austin, one specimen Duchess of Angouleme, 26½ oz. From L. Driver, pears—Dix, Urbaniste, and Pound pears, weighing 16 to 21½ oz. From B. Guild, pears—Beurré Diel, St. Michael, and St. Germain. From P. T. Homer, pears—St. Michael, all extra fine specimens. From H. Plimpton, pears—St. Michael. From Hovey & Co., pears, Swan's Orange. From R. Cricket, pears—Uvedale's St. Germain, 24 oz. From W. S. Perry, pears—Beurré Diel and Duchess of Angouleme, both extra fine. From A. Chapman, upland cranberries. From H. Vandine, pears—Marie Louise, Seckel, and Louise Bonne of Jersey. From J. S. Sleeper, pears—Buffum, fine. From F. Tudor, apples—Minister, Hubbardston, Winter Sweeting, Northern Spy; pears—Seckel, Langelier, and Madeira nuts. From E. Brown, Orange quinces; pears—Seckel, extra fine, McLaughlin, fine, Urbaniste, Fulton, Oswego Beurré, St. Michael; apples—Flushing Spitzenberg, Ben Apple, Lyscom, Swaar, Ram's Horn, and 15 varieties without name.

HORTICULTURAL OPERATIONS

FOR NOVEMBER.

FRUIT DEPARTMENT.

THE month of October, though cool, wet and boisterous in the early part, was accompanied with no very severe frosts; and up to the present time, (28th), the dahlias, in localities not exposed, are in full bloom, an unusual circumstance. The favorable weather has prolonged vegetation, and the foliage of trees and shrubs has but just begun to fall; but the last two weeks have been dry and warm, and favorable to the full ripening of the wood.

November is the season for finishing up all the fall work: fruit trees of all kinds should now be planted, and if the ground is ready, proceed at once with the work; if not, get it in order as soon as possible, as early planting can be done more rapidly than late, and the ground is likely to be in better condition. Trench ground intended to be planted next spring. Look after the canker worms: if the grub begins to run, tar or otherwise protect the trees. Pruning may be done this month, where there are large numbers of trees. It will save time in the spring.

GRAPE VINES in the earliest houses, pruned last month, should now have attention. Keep the temperature moderate at first, as, at this season, forcing should not be rapid. Cover the borders immediately with four to six inches of good manure; and on top of this, six inches of leaves or other covering, to keep out all frost and wet: 50° to 55° is sufficient for the night temperature till after December. Vines in the greenhouse, now dropping their leaves, will need no other care than to pick off the leaves as they turn yellow, in order to preserve a neat appearance. Vines in cold houses should be pruned now, and protected for the winter. Vines in the open air may be pruned.

PEACH TREES, in pots, should be sparingly watered so as to ripen off the wood.

RASPBERRY VINES should be protected upon the approach of severe weather.

STRAWBERRY BEDS should also have a slight covering of leaves, manure or tan before the weather gets too cold.

FIG TREES in pots should be pruned now, and allowed rest before forcing.

STRAWBERRIES, for forcing, should now have the protection of an old frame.

FRUIT should be looked after: pears of choice kinds, where there is no good fruit room, should be placed in shallow boxes, and set away in a cool dry room or cellar.

FLOWER DEPARTMENT.

The light, though not very severe frost of the last of September, came rather suddenly, before many cultivators were fully prepared for it. A few very tender plants were in some places slightly touched, but no material injury done. Heliotropes, Salvias, and other bedding plants, though somewhat browned by successive cool nights, continued to bloom up to the last of October. This favorable weather afforded time to arrange and put in order the plants, which were hurried into the houses, and to get up and pot many things which oftentimes are overlooked.

The houses should now be arranged for the winter. Keep the temperatures as low as possible, without any danger of frost, as early fires have a tendency to prolong vegetation rather than ripen it off.

CHRYSANTHEMUMS should now be freely watered, using liquid guano or manure: fumigate if the green fly appears.

PELARGONIUMS will now be growing, and may have a shift into the next size; water sparingly, and keep on a light shelf near the glass.

AZALEAS should have a cool, half shady situation in the house, and be rather carefully watered.

MONTHLY CARNATIONS, in small pots, may now be removed to a larger size.

GLADIOLUSES, of the spring flowering sorts, should now be potted.

ALSTREMERIAS should now be potted.

NEMOPHILA, **SCHIZANTHUS**, and other annuals for spring flowering, should now be potted off.

JAPAN LILIES, in pots, should be placed away in a cool frame.

SPARAXIS and **IXIAS** should all be potted now.

VERBENAS, in small pots for winter flowering, should now be shifted into a larger size.

ACHIMENES, done blooming, may now be placed away on a dry shelf.

CAMELLIAS will now require a good supply of water, and frequent syringing in good weather. Cuttings may be put in now.

PANSY SEEDS may now be sown in boxes, for spring flowering.

ROSES, in small pots, should now be shifted into larger ones, and such as have been planted out, taken up and potted.

CINERARIAS should have a shift now, if not already done.

EPIPHYLLUM TRUNCATUM, now coming into bloom, should be more liberally watered.

SPIRÆA PRUNIFOLIA PLENO, for forcing, should now be taken up and potted.

BEGONIAS, done blooming, should be kept rather dry.

FUCHSIAS should now be set away under the stage, in a good place, till January.

FLOWER GARDEN AND SHRUBBERY.

Now is the time to do up all the work in this department. Herbaceous ground should be replanted, and all kinds of biennials and perennials moved to the places where they are to bloom. The borders and shrubbery should have a light covering of good old manure, and everything not perfectly hardy, a protection of straw or mats. Do this before the weather is too cold and frosty.

TULIPS, **HYACINTHS**, and other hardy bulbs, should now be planted.

JAPAN LILIES may now be taken up and replanted, or new beds made.

GLADIOLUSES should be taken up, if not already done.

CARNATIONS, &c., should have a protection, if in beds, or else be removed to a frame.

HOLLYHOCKS, **BLUEBELLS**, &c., should now be transplanted where they are to flower.

PANSIES, of choice new kinds, will do better if they have the covering of a frame with a few dry leaves.

KEEP up a neat appearance around the house; sweep up all dead leaves, and rake and dress the walks. Take advantage of all leisure time to prepare any ground intended for early spring planting. Cover Hyacinth and Tulip beds, and protect everything which requires it.

THE MAGAZINE OF HORTICULTURE.

DECEMBER, 1853.

ORIGINAL COMMUNICATIONS.

ART. I. *The Fall of the Leaf.* By WILSON FLAGG.

THE two most interesting periods to one who is in the habit of associating some agreeable sentiment with the phases of nature, occur when the trees are putting forth their tender leaves and flowers in the opening of the year, and when they are assuming the variegated hues that precede the fall of the leaf. Hence the spring and the autumn have always been regarded as preëminently the two poetical seasons—the one emblemising the period of youth, the other that of old age. But to the eye of the painter as well as the poet do these two seasons offer the greatest attractions. In the spring, while the leaves are bursting from their hibernacles, and unfolding their plaited forms, they exhibit a great variety of tints, which are constantly changing with the progress of their development. In autumn, during a space of about two weeks, they pass through another succession of hues; and this change, connected with the fall of the leaf, has given rise to many pleasing sentiments, which have been woven into the poetry of all nations. It is a common fallacy to regard those objects as the most picturesque which have the least positive beauty: but landscape painters, actuated by a different opinion, have, for the purpose of adding a picturesque charm to the scenes they portray, most frequently chosen the autumn for their representations, and given to their trees the beautiful tints of the declining year.

If we would learn the full comparative value of trees, as ornamental objects, it is necessary to study them under the different aspects they assume, during each of the four seasons. They should be observed in May and June, when they are putting forth their leaves and blossoms; in July and August, when they have completed the growth and maturity of their foliage; in October, when they are hung with fruits, and are assuming the tints that precede their decay; and lastly, in December and later, when they appear in their denuded state, and have lost all their beauty, except that of the forms and arrangements of their branches. Under each of these aspects, they are a study which cannot fail to reward the observer, by affording him many new ideas, which will assist him in comprehending the beauty and grandeur of vegetable forms and colors.

The season of the fall of the leaf commences, in general, about the twentieth of September, and varying with the character of the weather, continues until near the third week in November. It occupies a space of about two months, and may be divided into three periods. The first includes the time between the twentieth of September and the middle of the next month, when the maple, the elm, the hornbeam, the hickory, the beech and the chestnut are in their full splendor. During this period the yellow, orange and scarlet hues predominate in the tints of the foliage. The second period occupies a space of about two weeks from the end of the first, when the oaks have fully ripened their tints, and many of the trees just named have become leafless. This period is remarkable for a predominance of red, crimson and purple hues in the color of the foliage; and it lasts until about the seventh or tenth of November. The third period commences with a succession of severe frosts, that destroy all the remaining tints of the forest, and change them into one uniform and monotonous brown. This period may be said to terminate with the early snows of winter, and is remarkable, in some years, for a series of warm days which have been called the Indian Summer.

All those who are accustomed to note the successive

changes in the face of nature, must have observed that the different species of trees and shrubs lose their leaves at different dates in the autumn, some being entirely denuded, while others hardly exhibit any change in their foliage. It may be further remarked that some species preserve their verdure until their leaves drop to the ground; among which we may class a great proportion of exotic trees and shrubs. Others roll up their leaves into a crisp before their fall, like the most of the herbaceous plants, without materially changing their color except by fading. Such are the ash, the locust, and the shellbark hickory. The leaves of a third class, without wilting or withering, change from green to some brilliant color, and make their beauty the harbinger of their decay. The greater number of the trees and shrubs belonging to the United States, are of this last description.

Those trees in general that exhibit the earliest and brightest tints, are the first to lose their leaves. This is observable especially in the maples, whose tints of yellow, orange, red, crimson and purple are conspicuous, while the leaves of most other species are still green. No sooner have other trees for the most part, assumed their autumnal hues, than the maples have already become leafless. While the latter are still wearing their gayest robes we may observe the hues of yellow, orange and brown of the common American elms. The tints of the elm are neither so brilliant nor so various as those of the maple. They consist only of a few shades of brown and yellow, which partake of that want of brilliancy that characterizes the verdure of the same tree. It is worthy of notice that while these trees are thus gleaming with gold, the English elm still retains the greenness of its foliage almost as pure as in summer. The same difference may be observed between the greater part of the indigenous trees of America and those of England and the continent of Europe.

This habit of European trees has led many persons to prefer them for ornamental purposes, to their kindred American species. A few additional weeks of verdure in the foliage of our trees, though it would not retard the approaching cold, would be a prolongation of one of the pleasant advantages

of summer. But it ought not to be overlooked, that if the American trees do not continue in leaf so long as those of Europe, they greatly exceed them in the brilliancy and variety of their autumnal hues. Should we, therefore, substitute foreign trees with their prolonged verdure, for our indigenous trees, with their early fading leaf, we should have autumn without its present charms. Nature, in the fall, would then resemble an old man without those silvery hairs, which are the crowning ornament of his years.

Among our trees the maples exhibit the greatest variety in their tints. Of different individuals of the same species, even when growing, side by side, in the same situation, not unfrequently some will have foliage of a bright yellow, others of vermilion, some of scarlet and crimson, while others still retain their summer verdure. In this respect the maples differ from other trees, of which individuals of the same species seldom greatly differ in their tints. Notwithstanding, therefore, the rapidity with which they lose their foliage, these trees are the principal charm of our woods, during the first autumnal period. The elm succeeds the maple in the ripeness of its hues and the fall of its leaves. The American poplars lose their leaves about the same time: but their tints, though more brilliant than those of the elm, are confined to the lighter shades of yellow. The birch, the beech, the chestnut and the hickory, all of which are clad, with more or less brilliancy, in yellows, succeed the poplar. Similar hues predominate in the lime, the larch, the cherry, and the wych-hazel.

But there are several species in which the different shades of red and purple prevail. Among these may be named the swamp hornbeam, which is one of the most brilliantly illuminated trees in our woods. In the shade its leaves are of a bright orange: but when exposed to the direct rays of the sun, they vary from vermilion to scarlet, seldom, I believe, approaching to purple. Like other brightly tinted foliage, that of the hornbeam falls early in the season, seldom remaining above a week in its full splendor. While the yellow tints predominate in the trees, the reds and crimsons predominate

in the shrubbery. Conspicuous among these are all the species of the blueberry and whortleberry tribe, that yield a fairy-like splendor to our wild upland pastures. Equally beautiful and more brilliant are the leaves of the common creeper, that often covers whole trees in our woods, mingling its pure scarlet with the different colors of the tree that supports it. The most of the sumachs exhibit a predominance of purple in the hues of their foliage, mixed with their original verdure. The viburnums and cornels are likewise variously shaded with purple and crimson.

The preceding remarks present an imperfect sketch of the appearance of autumnal foliage, during the first period of the fall of the leaf, when the yellow and scarlet hues are the prevailing ones in our woodland scenery. During the second period, very few of the yellows are to be seen, if we except the yellowish green tints of the different species of willow. The oaks are the glory of the second period, and are remarkable for the long duration of their beauty. Though their hues are neither so brilliant nor so variegated as those of the maples, yet they are at this time almost the only deciduous trees, of indigenous growth, that remain in foliage. Long after the remainder of the wood is leafless, except the evergreens, the brown, gray, chocolate, crimson and purple tints of the different species of the oak lend a charm to the forests which cannot be surpassed. The foliage of the oaks during summer is not exceeded in its finely indented forms, in the pure lustre of its surface, in its firmness, without any deficiency of tremulous motion, and may be said to combine a greater variety of those qualities that affect the mind with agreeable sensations, than that of any other tree. It is likewise remarkably tenacious of its hold on the branches, where it often remains until the opening of spring. Hence the rustling of the dry oak leaf always pleasantly reminds one of the appearances of nature, during her season of rest, and of our winter walks in the forest.

Among the shrubs that retain their leaves during the second period, are the wild rose, the gooseberry, the barberry, the sweet gall, and a few others. Of our fruit trees, the pear,

which exhibits several tints varying from yellow to red, intermixed with a larger proportion of green leaves, loses its foliage, during the first period of autumn, ten days or a fortnight before the apple tree. The great majority of fruit trees retain their leaves till near the middle of November, and exhibit only a slight mixture of tints. In general, our orchards continue in leaf to a later date than our forests. This difference may be attributed to the foreign origin of our common fruit trees.

In the plains and lowlands, some of the most prominent objects, during the second period, are the willows of different species. These trees preserve their leaves and their verdure very late in the season, fading only to a light yellowish green before they fall. The weeping willow, which was originally brought from the south of Europe, retains the greenness of its foliage till the late frosts of November destroy it. There is no tree in our climate except the evergreens, that preserves its verdure so many weeks, putting out its leaves very early in spring and retaining them until all other trees are denuded. This habit of the tree makes a pleasant compensation for its almost entire want of those fine tinges which are the glory of other trees that have a more short-lived foliage. And when, amidst the general nakedness of the groves, we behold the drooping branches of the weeping willow, waving majestically in the wind, with its noble form and foliage still unchanged by frost or by natural decay, it seems like something protected by enchantment.

The continued greenness of foreign trees, and their habit of retaining their foliage to a later period than our indigenous species, is also remarkable in the Italian poplar and the privet, whose leaves seem to be hardly susceptible of injury from the frost. This shrub which, for ornamental hedges, is greatly preferable to the American buckthorn, is still green late in November without the loss of a leaf. It might be inferred that trees and shrubs which were brought from climates warmer than our own would be more susceptible of injury from our autumnal frosts. So far is this from the fact, that their foliage is evidently more hardy than that of our indig-

enous species. It may be explained by supposing that the leaves of a plant from a more southern latitude, or from a country, like England, with a longer growing season, require a longer time to arrive at maturity, and that their power of resisting frost consists in their greater vitality. On the same principle we may explain the fact, very commonly observed, that a second growth of leaves, sometimes put forth after the first growth has been completed, has a remarkable power of resisting the action of frost. Whatever may be the explanation, it is true that the early frosts of autumn, that cause the leaves of many of our indigenous trees to drop to the ground, produce no visible effect on some of the exotics: nor do the intense rays of an American sun color them as they do the leaves of our own trees.

The beautiful tints of autumnal foliage are not correctly attributed to the action of frost. Neither are they the effect of the maturity, but rather of the old age of the leaf; and they may often be observed as early as August in those trees which are in a declining state of health. While passing by the Salem common during the second week in August, I observed a maple in its full autumnal drapery of crimson. On examining it I found that the tree had been nearly girdled. The wound had been healed, and left only a narrow strip of bark, about three inches in width to sustain the whole plant. This might have been sufficient for that purpose, during a moist summer: but on account of the drought of the preceding July, it failed to supply the tree with sustenance, and a premature old age of the leaf and its accompanying tints were the consequence. A severe frost at that early date would have produced no such effect. An early frost always injures these tints by searing and embrowning the leaves which are exposed to it. This effect was noticed last autumn (1853) when the leaves that ripened later than usual, on account of long continued rains in the latter part of summer, were overtaken by two very severe frosts, before they had begun to be tinted. In October, the effects of these frosts were apparent in a brownish tinge on the outer surface of the trees, greatly impairing the lustre of their tints, which were not so brilliant as usual.

The cause of the superior beauty of our autumnal hues, compared with those of Europe, is undoubtedly the greater intensity of the sun's rays and the greater proportion of clear and dry weather in America, causing the leaves to arrive sooner to maturity and old age. As these influences do not act in the same way upon European trees when introduced into this country, it would be important to note whether American trees preserve their peculiar habit when transplanted to European soils. There is reason to believe that, while these tints are attributable to the influence of our hot summers and clear skies, the habit was acquired with the origin of the species countless ages back, like the black skin of the negro, and that it is now beyond any such climatal influence. Though it might have owed its origin to this peculiarity of our climate, the habit is now one of the characteristics of the species. In all cases the leaf becomes tinted only when it has lost a certain portion of its vitality, and just before it is ready to fall from the tree.

The pines are not classed with deciduous trees: yet they shed their leaves in autumn as regularly as the latter. Late in October you may observe the yellow foliage which is ready to fall, surrounding the last year's growth of the branches, and exhibiting a curious intermixture of yellow with the green growth of the last summer. These leaves always turn yellow before they fall: you never find the green leaves of a pine tree, as you do of many other trees, mixed with the other foliage upon the ground. The same fact may be noticed of the oaks.

As late as the second week in November we can seldom find one of our indigenous trees with any green leaves upon it, unless it be a young tree, under the protection of woods. The third period has now commenced; and the fall of the leaf is nearly completed. The oaks, though not entirely stript of their leafy honors, have lost the beauty of their hues, and bear their heads less proudly among the leafless tenants of the forest. The grass already exhibits a seared and brown appearance, and is becoming tasteless to the flocks. A few asters may still be seen, a golden-rod in damp places, an oc-

casional solitary coreopsis in the meadows, or a blue-fringed gentian standing erect among the brown herbage of the fields. But amid the general desolate appearance of nature, the scarlet berries of the prinus are conspicuous among the wild shrubbery ; and the wych-hazel, clad in a full drapery of yellow blossoms, stands ready with joyful hues to welcome the Indian Summer.

The Indian Summer, which arrives during this third autumnal period, if it comes at all, is a brief period of warm weather that sometimes greets our climate in November, after the fall of the leaf, and not as many suppose in October. It is probably caused by the sudden check given to vegetable perspiration, by the fall of the leaves. It is well known that by sprinkling a floor, to cool a room in hot weather, we cause the heat to be carried off with the evaporation of the water. On the same principle, the infinite host of trees, whose leaves are constantly evaporating the moisture of the earth, must proportionally cool its surface, and the atmosphere that is in contact with it. Anything that increases evaporation from the earth's surface must cool it in the same manner. Hence we may explain the greater coldness of the air over valleys and wet places on summer evenings, and the fact, often noticed, that a rainy spell in autumn is commonly succeeded by severe frosts. The greater burden of the foliage of our woods remains on the trees and shrubs, until the severe frosts in the latter part of October. About this time the whole extent of our forests is often laid bare in the brief space of a week or ten days. Not only does this great extent of surface, thus laid open to the sun, receive from his rays an increased amount of heat, but there is a vast and sudden diminution, at the same time, of that evaporation which is caused by the leaves of plants. These two circumstances unite in producing, when no outward agencies interfere, a great accumulation of heat. The warm spell that follows is the true Indian Summer, and may last from five to eight days. During one of these spells of fine weather, I have sometimes heard the crickets chirping merrily as late as the eighteenth of November.

But our climate is exposed to such a variety of influences, by our geographical position, that the kind intentions of nature are, as it were, often defeated. In the ordinary course of things, we should be favored every year with this genial period of sunshine and warmth. But the north winds will sometimes rush down prematurely upon our territories, and bring winter along before its time. Farewell then to the Indian Summer, for that season. The tuneful insects, after chirping incessantly during all the early autumn, are obliged to sink into their winter sleep, without singing the requiem of the year. Rustic toils and rural sports are brought to a sudden termination, and the only beings who seem to rejoice are the boys, who are delighted with an early opportunity to renew the sports of winter.

Beverly, November, 1853.

ART. II. *Description and Engraving of the Marthy Anne Pear, one of Mr. Dana's new seedlings.* By the EDITOR.

VERY few of our American cultivators have given much attention to the production of new varieties of pears from seeds, either by careful fertilization of the flowers, or by selections from the best known varieties. Of the large number of native seedlings which we already possess, worthy of cultivation, all have been accidental seedlings but six or eight. Those who have tried the experiment in a small way have not, heretofore, been very successful in producing improved varieties; and the long time required to bring their trees to a bearing state, and the room necessary for the growth, has prevented all but the most enthusiastic amateurs from renewing the attempt.

Some few years ago Mr. F. Dana, of Roxbury, planted quite a large bed of pear seeds, selected from some of the leading sorts, such as the Beurré Diel, Brown Beurré, &c., &c. The whole number of plants which he raised was five or six thousand; from them he selected, the second or third year

of their growth, those trees which showed the least remove from their wild and thorny state, numbering in all about sixty. These he immediately grafted on a row of thrifty quince stocks of large size ; most of them grew well, though many evidently do not prefer that stock, and the third and

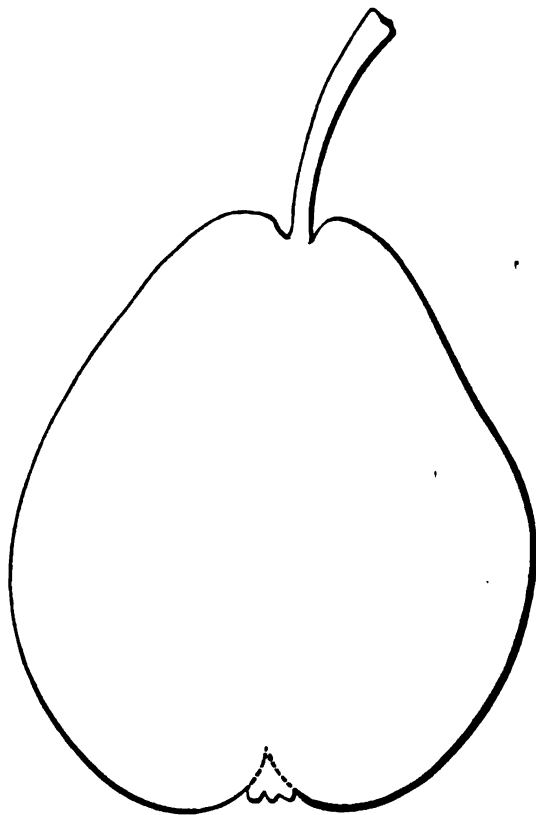


Fig. 38. Marthy Anne Pear.

fourth year they began to bear, the product of one of the earliest being the kind we are now about to describe. Mr. Dana was somewhat surprised to find he had raised such an excellent fruit ; especially as it was the generally received opinion that seedlings from the best varieties generally revert back to their original state. Another year others of the seedlings came into bearing, and, though not superior to the

Marthy Anne, nearly all were really very good pears, showing that, though the chance of obtaining a very superior fruit is somewhat uncertain, the tendency of seedlings to go back to anything like a wild state is not borne out. The present season more of the seedlings have fruited, and among them some of very good promise.

The Marthy Anne (*fig. 38*,) Seedling No. 1, has had the commendation of the Fruit Committee of the Massachusetts Horticultural Society, and will rank among our best November pears. Of large size and handsome appearance, a vigorous growing tree and a fine bearer, ripening at a good season, it must become a favorite with all amateur cultivators. Our description is as follows:—

Size, large, about three and a half inches long, and three inches in diameter: *Form*, obtuse pyramidal, largest above the middle, rounding off to the crown, and tapering to a somewhat obtuse point at the stem: *Skin*, fair, smooth, pale lemon yellow, mottled with green, and profusely dotted with large, pale russet specks: *Stem*, rather long, about one inch in length, moderately stout, little curved, and inserted in a very small, contracted cavity: *Eye*, medium size, open, and slightly depressed in a small very shallow basin; segments of the calyx short, broad, rounded: *Flesh*, yellowish white, coarse, half melting, and very juicy: *Flavor*, rich, sprightly and sugary, with a delicate aroma: *Core*, large, slightly gritty: *Seeds*, medium size, dark brown. Ripe in November.

We trust Mr. Dana's success will induce all cultivators who have plenty of room, to attempt the improvement of this delicious fruit by the growth of seedlings. By judicious selection of the seed, we have no doubt the number of our American varieties may be greatly increased, and eventually a selection be made which shall surpass any of the foreign sorts we now possess.

ART. III. *Pomological Gossip.*

MR. DANA'S SEEDLING PEARS.—We have in our previous volumes incidentally mentioned Mr. Dana's Seedling pears, which have been exhibited before the Massachusetts Horticultural Society during the past three or four years. And in another page we have figured and described one of the best of them, which has now passed the ordeal of three years' trial, and proves much better than at first. Its excellence established, and having a good stock of the trees, Mr. Dana now offers them for sale, as will be seen by our advertising pages.

NEW PEARS.—Several new and promising pears have fruited this year, and have been tested by the Massachusetts Horticultural Society. Among them we think the following especially deserving of notice:—

Beurré Soulange.—A pyramidal pear, of medium size, and yellow skin: flesh, melting, buttery, juicy, and rich.

Theodore Van Mons.—A medium-sized ovate pear, with a yellowish skin, melting, juicy and excellent. November.

Alexandre Lambre.—Obovate, medium size, with a yellow skin. Flesh very melting, juice rich and high flavored.

Beurré Kennes.—A medium-sized, obovate pear, with a rather long stem, and green and russet skin: melting, juicy and excellent.

Long de Monkowty.—Under this name and that of *Beurré* Judes a remarkably fine pear has been exhibited this year by Mr. Wilder and Messrs. Hovey. In size, shape and quality it very nearly approaches the *Dix*: in color it varies, being very thickly covered with large russety spots. Which of the two is the true name, or whether either belong to it, is uncertain. But under whatever name it may become eventually known, it is one of the finest pears of its season, which is October. The tree is a most abundant bearer, and a vigorous grower.

Dana's No. 16.—This is another of Mr. Dana's seedlings, which promises to be a desirable variety. The tree

has just borne for the first time, and was overloaded, undoubtedly diminishing the size of the fruit, which is large medium.

Arbré Courbé.—This is one of Van Mons's seedlings, and a very excellent pear. The tree is a rambling and crooked grower, something like the Marie Louise. It is large and pyramidally formed, with a greenish skin. Ripens in September and October.

Beurré Nantais.—This pear was fully described and figured in our last volume by A. Leroy. It is of large size, long pyramidal form, with a yellow skin; and the flesh is melting, juicy, rich and excellent.

De Bavay.—A medium-sized pear, of obovate form, and a yellowish green skin: flesh, melting, juicy, rich and fine.

Several other new ones will be noticed in the commencement of our next volume.

NEW SEEDLING GRAPE.—Mr. Bull's new, early and delicious native variety, was exhibited before the Massachusetts Horticultural Society, on Saturday the third of September, fully ripe! being more than two weeks before the Diana was mature. It has not only proved by far the earliest grape we have, but also one of the most delicious, having, in the place of the musky flavor of the Isabella, the rich aroma of the Catawba, with which probably its parent was somewhat fertilized. Specimens were exhibited before the committee, who say that "it fully maintains the high character heretofore given to it."

We are gratified to announce that Mr. Bull has decided to offer it for sale in April next, and has placed the entire stock in the hands of Messrs. Hovey & Co. for disposal. In an early number of our next volume we shall give a full account of its origin, growth, &c., and an engraving of the fruit. It will be called the CONCORD grape, having been raised in the town of that name, very near the spot so memorable in the annals of our history, and known as the Concord battle ground.

THE SHELDON PEAR.—This new and delicious pear has this year more than justified the high encomiums we gave it

in our description in our volume for 1851. Specimens that we presented before the Massachusetts Horticultural Society, October 8th, were unanimously pronounced to be "one of the best pears tested by the Fruit Committee." It is not only a fine pear, but, under good culture, a very large one, measuring from three to three and a half inches in diameter, and weighing ten to twelve ounces. The tree is a fine grower, produces abundantly, and comes into bearing early. It will sustain the highest rank among the great number of new pears.

SCOTT'S SEEDLING STRAWBERRY.—No strawberry of recent introduction has had a higher reputation among those who know it than Scott's Seedling. It was raised by Mr. Scott of Brighton, a market gardener, and has now been in his possession four or five years, during which time he has been extending its cultivation until he has five or six acres covered with it, and, if his vines do well, will next year gather several thousand boxes. Every one who has purchased the fruit in Boston market has pronounced it one of *the* few really prime strawberries we possess. It is a very peculiarly shaped berry, being nearly or quite two inches long, and about half that in diameter at the base; of a deep rich glossy crimson color, and a firm, yet very juicy, rich, and extremely high flavored flesh; its firmness being a great recommendation as a market berry. Mr. Scott's soil is very light, yet this variety succeeds remarkably well, and produces, with him, a larger crop than any other variety. It comes in just after all the early sorts are gone.

THE PENNSYLVANIA STRAWBERRY.—This new variety is a seedling of the Moyamensing, and was raised by Gerhard Schmitz, of Philadelphia. Fruit large, broadly conical, dark crimson; seed crimson, and when shaded yellow, set in depressions not very deep, with roundish internals; flesh red; flavor fine. It is a pistillate variety. Leaves large, deep green, with crenate serratures. The Committee of the Pennsylvania Horticultural Society awarded it the first premium of \$5, as the best new American seedling strawberry, of superior quality, after two years' trial.

It was first exhibited at the stated meeting of the Pennsylvania Horticultural Society, June 15, 1852, and received the premium for the best at an unusually rich display; and at the June show of 1853 it received the premium as the best new American seedling, of superior quality, after two years' trial.

LARGE BROWN BEURRE' PEAR TREE.—Our thanks are due to Henry Johnson, Esq., mayor of Newburyport, Mass., for some very handsome specimens of that fine old and neglected pear, the Brown Beurré, gathered from a tree growing in his garden forty-seven years, which was planted in 1806. For the last twenty-three years, with abundant manuring, it has blossomed very freely, and, besides the fallen and blighted fruit, has yielded three bushels a year of perfect fruit! The Brown Beurré is still the standard for a fine pear, and could these specimens have been seen and tasted they would have convinced cultivators who neglect the old pears, that they are still better than many of the new ones.

PRINCE ALBERT GRAPE.—This new grape which, with many cultivators around Boston, has not proved a very abundant bearer, seems to succeed better in Western New York. Mr. J. W. Bissell of Rochester, writes as follows, in regard to it: "My gardener, Mr. Salter, who visited Boston last spring, tells me he was informed that the Prince Albert grape had not fruited well in your vicinity. With me such is not the case. The bunches on my vines have always been large and loose, and would average at least three pounds: some of the largest would reach nearly five. I think the variety inferior in flavor to the Victoria or Black Hamburgh." We are glad to hear of such good success in raising this showy grape, and we trust our cultivators who have not been successful in growing it will give it further trial.

ART. IV. *Mode of replacing Branches on Pyramidal or Espalier Pear Trees, as practised in France.*

WHEN young nursery or maiden trees are selected to make a plantation of pyramidal or espalier pears, there is little

trouble in forming fine specimens in the hands of a good cultivator. Beginning at the base, one or more tiers of branches can be secured every year, and at just such distances as are required. There is little need of replacing any, unless in the case of accident, by grafting, budding, or any other means. Only negligence can be any excuse for not having handsome trees.

But when the object of the cultivator is to have large trees at once, without the trouble and loss of time attending the growth of young ones, it rarely happens that large specimens can be found of handsome shape, or even such as can, with the skill of the best cultivator, be made symmetrical without a great deal of labor and expense, with a doubtful result in the end. Many ways have been suggested to replace lost branches, or bare spaces in wall or pyramid trees, and the practice has hitherto been to side-graft, or bud in, wherever such are wanting: but the vigor of an old tree is such that the buds or grafts rarely grow willingly, or, if they start, with such feebleness that they are a long time filling the required space.

The French cultivators, with their skill in the training of trees, seem to have hit upon a plan to accomplish what has heretofore been but indifferently done. And the plan appears to us so complete that we copy the account of it, given by Mr. R. Thompson, who was sent by the London Horticultural Society to examine the French gardens, and report upon the state of gardening in France. His communication was published in the *Hort. Journal* for 1847, (Vol. II,) and is illustrated with a cut representing the mode of operation, (*fig. 39,*) a copy of which we also annex:—

From Fontainebleau we proceeded by diligence to the railroad station at Corbeil. Near this, some pear trees have been managed in a peculiar way by M. Fourké. In order to see these trees and get back in time for the train, there was not a second to be lost, for the probability was very doubtful. However, we did see them with astonishment, without which, I think, no gardener in England could. They were

fine trees, covering a wall, and trained horizontally. But they were not planted when young, and trained progressively in order to produce this regularity. On the contrary, they were planted when large and irregularly grown, having in some places a redundancy, in others a deficiency, of branches. Various means are frequently resorted to with the view of supplying branches where wanting, such as notching, budding, or side-grafting the stem; but here the desiderata were obtained by inarching the growing extremities of adjoining shoots to the parts of the stem whence the horizontals should proceed.

Supposing the branches of a tree are trained horizontally a foot apart, with the exception of some where the buds intended to produce branches did not break, as is often the

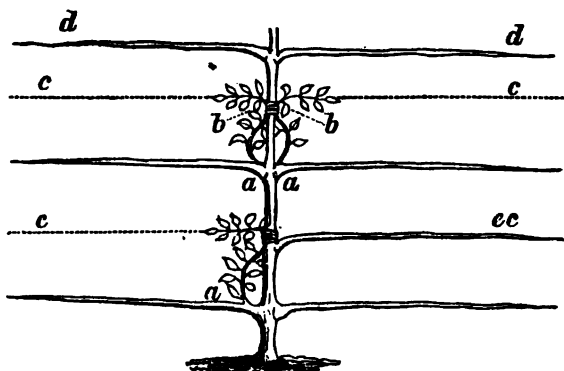


Fig. 39. Mode of replacing Branches on Espalier Trees.

case; then a shoot, *a*, is trained up, and, when growing in summer, a small slice is taken off near its extremity, and a corresponding extent of surface immediately below the inner bark of the stem is exposed; the two are joined together, and the point of the shoot *a* is inclined in the direction to form the branch *c*. The most remarkable feature in the trees at Corbeil was the uniformity of vigor in the respective branches. It appeared as if the supplied branches, *ccc*, had been allowed to grow in connection both with the stem at *bb*, and the branch from which they originated at *aaa*, till their length and thickness corresponded sufficiently with that of the branches above

and below them. This is a great advantage which the mode possesses over budding or side-grafting.

At the distance of a foot apart for the horizontal branches, it takes as many years to cover the wall as the latter is feet in height; for although the leading shoot may grow three or four feet in length in a season, yet by shortening it to two feet, although the branches *dd* would be produced, the buds at *bb*, to furnish the intermediate stage, most probably would not. In fact, the attempt to form two tiers of horizontals in one season is generally followed by more or less disappointment. The intermediate stage might, however, be readily supplied by the method above detailed; and a wall twelve feet high might be covered as well in six years as it otherwise would be in twelve."

Such is the plan as minutely detailed by Mr. Thompson, and fully elucidated by the engraving. It at once shows its superiority over budding or side-grafting, and suggests itself as the most natural mode of accomplishing the end in view, because the inarching acquires its vigor from the branch below, and may remain attached to that branch till the union is perfect, and until it gets such strength as to ensure success. It even has greater vigor than a horizontal branch, as the tendency of espalier or pyramid trees to throw up vigorous shoots at or near the stem is well known, and in espalier trees they require constant pinching or cutting out to check their exuberance of growth, the tendency of the sap being upward rather than towards the ends of the horizontal branches.

Wall or espalier trees are only grown with us to a limited extent, and the appliance of the plan would be of limited extent; but there are thousands of pyramidal trees cultivated, whose shape may be rendered perfectly symmetrical and beautiful, and the system become one of very great value to all amateurs who delight in possessing perfect specimens of this most desirable style of tree.

ART. V. *Notes on Gardens and Nurseries.*

LINMERE, RESIDENCE OF R. S. FAY, Esq., *October, 1853.*
 All our readers who are interested in trees or shrubs, will probably recollect our previous notices of Mr. Fay's grounds, and our account of the many fine Evergreen trees which he has introduced and planted, with a view to test their hardiness, vigor, growth, &c. If, however, our remarks have been forgotten, our volumes for 1849 and 1851 may be referred to, as giving a brief account of the improvements which have been made at Linmere since it came into Mr. Fay's hands.

For the last three years Mr. Fay has resided abroad, most of the time in England, and he has been constantly adding to his stock of trees by annual importations of seedlings, a large part of which have now become established, and have made a vigorous and fine growth. The earlier planted trees, distributed over many parts of the grounds in 1849 and 1850, have now reached a good size, and materially alter the aspect of the former bare and apparently barren and rocky country around Linmere. The Scotch and Austrian pines, of which several thousand were set out over some acres, are now 4 to 8 feet high, and, from their present rapidity of growth, will soon change the entire features of the place:—

As one object in our notice of Linmere is more particularly to show the relative growth, vigor and hardiness of the different kinds of Pines, Firs, &c., which have been planted here, we shall give the height of the trees at each of our visits. They were planted in 1849:—

	1849.	1851.	1853.
<i>Pinus cémbra</i> ,	1 foot,	4 feet,	6 feet.
<i>Pinus excélsa</i> ,	2 feet,	5 feet,	10 feet.
<i>Pinus austriaca</i> ,	2 feet,	9 feet,	14 feet.
<i>Pinus sylvéstris</i> ,	1 foot,	5 feet,	10 feet.
<i>Abies Smithiana</i> ,	2 feet,	5 feet,	7 feet.
<i>Picea pinsapo</i> ,	2 feet,	5 feet,	8 feet.
<i>Cèdrus Deodàra</i> ,	2 feet,	6 feet,	9 feet.

	1849.	1851.	1853.
Cryptomeria japonica,	2 feet,	5 feet,	8 feet.
Silver fir, (European,)	3 feet,	7 feet,	12 feet.
Abies cephalonica,	1 foot,	3 feet,	5 feet.

Only a few kinds were planted in 1849, and we take these in order to show the relative growth for the longest period. Thousands of others, set out since then, in well prepared ground, have grown much faster, and in the same period of time will be much larger specimens.

All are very broad, straight, and splendid specimens, particularly the *Pinus excelsa*, which is extremely fine. It is a tree which will be a general favorite everywhere. The Deodars have done finely: they have not had any protection, and they are remarkably bushy and fine trees. The *Cryptomeria japonica* is doing well, and its hardiness is completely established in the latitude of 42° , after a severe trial of four years, including the hard winter of 1851 and '52. For the first and second years it should have a slight protection of evergreen boughs, or something similar, which will merely keep off the sun; and after that they go on without any more care than the Deodara: the situation for it should, however, be naturally dry, or, if not so, it should be well drained.

But, besides the evergreen trees, Mr. Fay has some beautiful ornamental trees. A fine Canoe birch, (*Bétula lutea*) one foot high in 1849, is now *twenty-five feet*. Spanish chestnuts, planted in 1848, are now 12 feet high. Among a variety of imported Hollies, Mr. Fay has found one which is quite hardy: it is called the Hodgkins variety. There are very beautiful specimens of the fastigiate oak, (*Q. fastigiata*,) Liquidamber, Norway Maple, Deciduous Cypress, (perfectly hardy,) Weeping Oak, Eagle's-claw Maple, Striped Sycamore, Purple Beech, &c.; hundreds of fine English oaks, and thousands of small American ones. Among a lot of imported beech, Mr. Fay has one tree which spreads out horizontally, neither weeping nor upright, and is quite a picturesque object. The Chestnut Oak, Mr. Fay has raised from seed, and the

plants, now three years old, are three feet high, and growing vigorously: it is one of our finest oaks.

Many other trees are well worthy of note, but we have time now only to enumerate the above; another season we shall endeavor to give a better account of all that Mr. Fay is doing to increase the taste for fine trees.

MISCELLANEOUS INTELLIGENCE.

ART. I. *General Notices.*

BARGAINS IN PLANTS AND SEEDS.—The following, from an English Journal, though written for the latitude of London, will answer full as well, and we are inclined to think even a little better, for the latitude of Boston. No people are more fond of being humbugged than our own countrymen; our auction rooms are crowded to excess with anxious purchasers of all kinds of garden stuff, every fall and spring; an old rose bush "just imported by Mons. Squeezem," three or four feet high, grafted on the top, and as dry as a stick, sells for 75 cts. to \$1.50, according to the name, when a fine healthy plant, of the same sort, raised by a respectable cultivator, would be thought "horrid" dear at 50 cts. Imported pear trees of new and rare kinds are purchased at 50 or 75 cts. each, not half of which grow, and the other half of which prove entirely different from their names, when fine trees can be had fresh from the ground, with a certainty of the sorts, for the same, or a less price. We are inclined to think the eyes of purchasers would be somewhat opened, and their purses kept tighter closed, if they could see a list of the things with which they have been humbugged the last few years. We enumerate three of the greatest as a sample:—

A few years ago, when fine Double Prairie roses were more rare than they are now, and were selling at \$1 each, the plants rather small, a man from the West brought to Boston five barrels of Prairie roses, splendid large plants. Not being able to find a purchaser among the *trade*, to whom he applied, and who knew what they were, he found an outsider who bought them, or sold them for him. An advertisement in the newspapers announced that "splendid Prairie roses could be had for \$1 each." The rush for them of course was great, and they were soon sold. But what was the result? Why, after waiting two years for them to bloom, they were found to be single Prairie roses from Michigan, the roots of which were dug up in the pastures.

Then, again, we had the White Egg grape, hundreds of which were sold in State street, at \$1 and \$2 each, when everybody who knew anything about grapes, knew they were dug up in the woods, almost by the side of the doors of many who purchased them.

Then we had the famous "Newland's Alpine strawberry," a small patch

of which bore more than an acre of any other sort. Thousands and tens of thousands were sold all over the country at \$1 or more a dozen, and we doubt whether any man ever kept a single plant after it had once fruited.

However, it is of no use to offer any advice; so many people have got the idea into their head that nurserymen make seventy-five cents on every fifty cents worth they sell, that they prefer to pay double prices, and get half their money's worth, rather than deal with such sharpers and get the full value of what they buy.

So it is with seedsmen. A purchaser buys a paper of cabbage for *four-pence*; when, perhaps, the established seedsmen would charge *ninepence*; well, what is the result? In one case, only half of the seeds vegetate, and the other half are mixed sorts; in the other he has a full crop of fine plants. Now a package of seeds will give at least one hundred heads, worth \$6; so that in trying to save six cents the purchaser loses \$3 or \$4.

Experience dearly bought is the best, and perhaps the evil will cure itself in time:—

“That there is a good deal of humbug in the London seed trade cannot be denied; but it is as notorious that the public have, in a great measure, been the cause of it, and their indiscriminate love of quantity for money has brought it all upon themselves. The thirst for low prices has caused a most unwholesome competition. A scamp sets up for cheap selling, advertises retail seeds at less than he must pay wholesale to procure them himself. Common sense tells us that there are only two ways to do this; one by adulteration, the other by cheating his creditors. He must cheat somebody, either those he buys of, or those he sells to must be taken in. Yet such is the rage for cheap things that thousands encourage the cheap seller. The fair tradesmen see the ground slipping away from under their feet; they must either meet the public or lose their business. If none but sensible persons purchased seeds it would be no trouble to show them that they were duped by the cheap sellers; but it is not so: a vast majority do not know a good seed from a bad one, and nobody but the raiser can know the sort, that is, the particular variety, nor whether it be true or otherwise. The most respectable houses, where every precaution is used, are occasionally deceived. They may know the sample is good and in good condition, but although every seed may grow they may be far from true to the sort they buy it for; in which case it is worthless, and every ounce they sell injures their trade. The best seedsmen send their own seeds to be grown by regular seed-growers, and pay them so much per quarter, or bushel, or ton, as the case may be, for all they can produce from that seed. There are seed growers who, judging what will pay them best, will grow on their own account; but having established a reputation and a connection, they have no difficulty in finding a market among those who know them. But of what use is seed that can only be bought at a full price to compete with the cheap shops? It is to be regretted that in an article which tells no tales as to its quality for months, the public should be so careless. Every man who has a shilling to spend should have the moral courage to deal with first-rate houses, and be content to pay a first-rate price for a first-rate article, be-

cause he is completely at the mercy of the seller, who has many ways of cheating him if disposed to do so. One mode of imposing on the public is to adulterate the article by means of dead seeds, and this has often been done to the extent of 75 per cent. Another mode is to serve them with an article of which the growth is unknown, and which, for want of a character, will bring no price in the market among creditable buyers. It is, therefore, bought to kill and mix with good seed, or to be retailed at a cheap rate. There is nothing more absurd than buying cheap things for a garden. Thousands of bulbs are sold at the marts under the hammer of rigging auctioneers, and yet failure in the bloom, year after year, will not cure silly people from buying. In seeds a man is not only robbed of the cost, but he loses his ground, his crops, and his season. People can be found who will sell a hundred packets of flower-seeds for a crown; but would a man who has a character to lose, or a connection to preserve, or whose time is worth anything, do so? No; and yet there are persons weak enough to buy the rubbish, because it is cheap. We know we are handling a ticklish subject, and that in this, as in many cases, we may offend people who might do us good. Our hope is, that truth, however ugly, will ultimately prevail; and that if we offend one by telling unpleasant facts, we may gratify ten by opening their eyes to the tricks which are played, and save them from being duped. Good seeds are of such importance, and the cost so small, that we cannot, and never could, account for the prevailing disposition to look at the price. Let us consider, for a moment, that a family wish to provide a crop of cabbages, the difference between the very highest and the very lowest price could not be three pence, and when the crop comes it may not be worth the price paid for the seed, and it may be all that can be required. "Penny wise and pound foolish" is a saying often applied to those who run after cheap things, but in no case does it come with such force as in garden matters. If a man buy what he can see, he may be taken in a little, and pay a small penalty for running after bargains; but in seeds a man is buying a future crop of something that may be good or good-for-nothing; and if the latter, he will have lost all his time and room as well as his money. We, therefore, strongly advise the public to avoid cheap things in all garden matters. Avoid all auctions but those on a man's premises, where there is a tangible reason for selling, and a chance of fair buying. We do not mean a sale where a man once a year pretends his ground is wanted for building, and has a sale with reserve upon every lot worth having. How often have we seen sales on the same premises, and the ground, after it was over, about one-third cleared. The best thing the public can do, if plants are wanted, is to go to a respectable nursery, buy only what is wanted, and of the size it is wanted. Avoid auctions altogether; leave them to the trade, who, if they can buy worth their while, purchase, and if not, let things alone. A gentleman may be sure that if he does get a bargain, to all appearance, there is something which the trade discover and which he does not, and that nine times in ten such bargains are dear."—(*Flori Cab.*, 1853, p. 112.)

WINTER TREATMENT AND PROPAGATION OF EPACRIS.—These will now have completed their growth and formed their flower buds. See, therefore, that they are in a proper condition for wintering, their pots clean and the drainage complete, for to have it perfect is of more consequence during winter than at any other season: if it is imperfect the water will lodge in the soil and turn it sour; the young roots will then perish, and the plant will soon show the ill effects of such conditions. This fact cannot be too strongly pressed upon the attention of the young cultivator. Should any worm casts appear upon the surface of the soil, means must be taken to get rid of them: if only one or two pots are infected the most certain remedy is carefully to turn the ball out of the pot, and if the worms are outside, to gently remove them without disturbing the roots: but if they are imbedded in the soil they will be more difficult to come at. If the ball be gently struck with the hand, they will creep out of their hiding places and may be destroyed. Should these means fail, let the plants become moderately dry and then give a good watering with lime water; this will effectually displace them. The green fly sometimes prevails in the early part of winter on the young shoots; they are easily got rid of by smoking with tobacco. The application of water during winter is necessary, but only in moderate quantities, merely just sufficient to keep the soil somewhat moist, care being taken that the ball is moistened to the centre. All the artificial heat that is needed for the *Epacris*, is just enough to keep out frost. If the plants, or part of them, are kept in cold pits, they should be securely covered up every night when severe frost prevails: in very severe, long continued frost it may be necessary to keep them closely covered up even during the day. They have been so covered up for a week together without injury; but on all favorable occasions uncover them, and give them fresh air to dry up damps, and keep the plants fresh and healthy. Air must also be given plentifully to the greenhouse, both to keep down the temperature and sweeten the atmosphere. Once or twice during the winter let the surface of the soil be stirred, and all mosses and lichens removed as well as weeds. Towards the spring, when the flower buds are beginning to push, a top dressing of fresh mould will be acceptable and useful.

In order to perpetuate choice varieties already known, the only way is to strike them from cuttings; they are by no means difficult to propagate in this manner, though certainly not so easy as a geranium or chrysanthemum. The materials necessary are, some good sandy peat, some fine white silver sand, and two or three bell glasses, together with a rather warmer house to place the cuttings in than the greenhouse. The best time is when the plants have plenty of young shoots upon them, which generally happens about the month of May. [In January and February in our climate.—Ed.] The best cuttings are such as are growing on the side shoots, because these are not so gross and full of sap as the leading branches. The shoots being in a fit state to take off for cuttings, select some pots of such a size as will allow the bell glass just to fit within them; fill the lower parts of the pots with broken potsherds for drainage, lay upon the drainage a thin layer of the rougher parts of the peat, then fill up with roughly sifted peat to within

an inch of the top, and fill the remainder with fine silver sand; give a gentle watering from a fine-rosed watering pot to settle the sand, then prepare the cuttings: take them off about $1\frac{1}{4}$ inch long, trim off the lower leaves carefully with a very sharp knife, without injuring the bark; set the bell glass upon the sand to make a mark, and within that mark, put in the cuttings in neat rows across the pot; keep each variety by itself. Proceed till the number desired to be multiplied is all planted; then give a second gentle watering to settle the sand close to the cuttings; let them stand half an hour in the shade to dry the wet off the leaves; then place the bell glasses upon them, and set them in a gentle heat, shading them every day when the sun shines. Also, let the glasses be wiped dry every morning for a month, and by that time the cuttings will begin to grow. To check them from drawing up weakly uncover them for an hour or two every morning; and when they are rooted remove them into a cooler house for three or four weeks, leaving the glasses off in dull weather, and shading them from hot sunshine; by that time they will be fit to pot off. If there is a considerable number and room is scarce, they may be put into three inch pots, four in a pot, and allowed to remain in them till the following spring. When they are potted off out of the cutting pot, place them in a cold frame close to the glass, and shade till they are fairly established, to cause them to form branches close to the pots; snip off the tops as soon as they begin to grow afresh; and when they have filled the small pots with roots, repot them, and afterwards treat them in the same manner as the established plant.—(*Gard. Chron.*, 1853, p. 679.)

GLOXINIAS, THEIR TREATMENT, WITH A LIST OF A FEW OF THE CHOICEST.—Of the vast number of stove and greenhouse plants now cultivated, there are but few possessing more beauty and variety than Gloxinias, and I think there is not another genus of plants that gives us so much of their beauty as Gloxinias do. They are easy, too, of cultivation, which is an additional recommendation. I shall here give some plain particulars how they may be cultivated to that perfection they are capable of, their period of blooming, with other matters concerning them, and a list of a few of the best kinds, with their colors, to enable readers who would wish to form a collection to select therefrom; and those that have a small collection, and wish to add to the same, they will find the varieties undermentioned to give the greatest satisfaction.

Of the soil best adapted for Gloxinias, there has a great deal been said and written; the fact is, most gardeners have their own little way of mixing the soil, some liking it rough, and others fine, &c.; but they will be found to succeed best in the compost I now describe. *Supposing the bulb is about the size of a filbert nut*, a pot forty-eight sized, must be used for the first potting, and the compost to consist of one part leaf-mould, one part hazel-loam, and two parts peat,—the whole to be mixed well together, and to be used in a moderately rough state. A sprinkling of sand may be used, to keep the soil free. In potting, use clean pots; and the *corks to be clean too*, as nothing is of more importance in the growth of most plants than thorough good drainage. After the plants are ready for another shift,

which may easily be ascertained by the roots having filled their first pot, they must be shifted into twenty-four-sized pots, using for compost as follows:—One part leaf-mould, one part hazel-loam, one part peat, and one part rotten-dung from an old melon bed. Let the above be mixed well together, and used in as rough a state as possible, along with a sprinkling of sand to keep it open. After the roots have filled the pot, they may still have another shift; and when large plants are required for exhibiting, or for show in greenhouse, the pots used for this potting must be sixteen-sized. The compost too for them must consist of one-third hazel-loam, broken in lumps, and one-third rotten dung from an old melon bed, to be well mixed, and used as rough as possible. In potting for the first shift, let the soil be pressed but little; in fact, in all the various pottings the soil should be but just pressed moderately tight, as the frequent watering will enable it to sink sufficiently close together. After the plants are potted they should be kept in the warmest part of the stove, and kept very close for a few days to start them in fresh growth, which may be discontinued and the plants put in a place where they will receive a little air by day. When rooted sufficiently strong in the fresh mould, and as they advance in growth, especially before they bloom, and while in bloom, they must be occasionally watered with *weak liquid manure*, which will greatly strengthen the color of the flowers. As the shoots get long, which in some varieties they are apt to do, they must be pegged down with care *on the soil on the pot*, and they will form fine dwarf heads, and bloom profusely. No other remark on them is necessary while in bloom, as they merely require to be watched to see they do not suffer from want of water. When the plants have done blooming, watering should be entirely dispensed with, and the pots be placed in some dry situation on a shelf, in a shed or greenhouse, where they should remain for about two or three months, quite dry. When the season for potting arrives, they may be turned out of the pots they have been resting in, and repotted in twenty-four-sized pots, in the compost recommended, shifting them as they advance in growth, as before stated. When varieties are purchased first from the nursery they are generally received in sixty-sized pots; they should be shifted into forty-eight-sized.

The time of Potting. That depends on the time they are required to bloom; viz., if required for exhibition purposes, they must be started to meet the time as near as possible. Now "*for a guide.*" Supposing plants were required in bloom in June, the old bulbs should be turned out of the pots they have been resting in about January; potted, and be kept warm; and being kept growing, in June they will be in fine bloom, and they will continue in beauty the whole of the summer, and form one of the principal attractions in the greenhouse or conservatory.

The following are a few good varieties:—

Marie Van Houtte, white and carmine, blotch a fine large flower.

Napoleon, carmine-red and white.

Petioniana, white, with crimson-throat, fine flower.

Alba Grandiflora, pure white, very fine.

Argyrostignia Splendens, deep-purple with a fine white throat, and the foliage beautifully striped; a fine variety.

Baronne de Friere, mottled lilac.

Carminata Splendens, fine rich crimson, large flower.

Daphne, pink, edged with white.

Godfroi de Bouillon, fine blue.

Grandis, blush, with carmine throat.

Madam Malibran, bright-rose, fine.

Spectabilis, fine large purple flower.

Victoria Regina, lilac blush, with intense purple throat.

The above list embraces some of the best, and merits a place in every collection. For a larger collection other beautiful distinct varieties may be obtained, there now being one hundred and forty kinds in cultivation.—(*Fior. Cab.*, 1853, p. 135.)

HYACINTHS GROWN IN THE OPEN BED.—I hasten to fulfil my promise by rendering an account of the method observed by many amateurs and florists in cultivating Hyacinths in beds and pots, and which is adopted by me as being the most preferable. The observations I am about to offer thereon should be as succinct as the manner admits, and be strictly confined to practicable results, for mere theoretical statements in this, as in nearly all other matters bewilder rather than instruct. Being an enthusiastic admirer of the flowers, I have taken no ordinary pains to produce a good bloom, and can, therefore, the more confidently suggest a few hints respecting the culture of it. It has always appeared to me, as well as to many with whom I have conversed upon the subject, to be a matter of regret that comparatively so little attention should be bestowed on this flower: the Tulip has numerous fanciers, and so have Carnations and Auriculas, whilst the Hyacinth, though not inferior in beauty, seems, as to blooming it in beds, to be too generally neglected; and yet a more beautiful object amongst all those which attract the eye in a flower garden is rarely seen. The effect produced by a glance at an assemblage of so beautiful a flower, especially when well arranged, is dazzling, and a close inspection will be found to increase the gratification derived therefrom, added to which the fragrance emitted by them is peculiarly sweet, and is not surpassed by the Mignonette or the Tuberose.

The most eligible part of a garden for a bed is that with a southern aspect, and considerably distant from trees and large shrubs, as the droppings to which plants beneath are subjected, prove extremely prejudicial; the season for planting is during this and the following month, the precise time being indicated by the appearance of the root itself, which I noticed in my remarks that were inserted in a late Number; a repetition of it therefore is unnecessary. The portion appropriated should be excavated to the depth of about two feet, the earth at the bottom loosened and rendered fine to about six inches deeper, and then raked smooth. This process will take but little time, and may be attended with advantage; the hollow should then be filled with the following compost: one-third of good garden earth: one-third of sea or river sand, as coarse as can be obtained; one-fourth rotten dung, about three years old; and the remainder vegetable mould.

The earth used in the compost will require minute examination, in order that vermin may be exterminated, of which the most destructive, and the most likely to elude detection, is the yellow wire-worm.

When preparing the compost, let its several parts be well mixed; this should be performed a few weeks before it is needed, and will require turning over several times. After the bed is filled up add more compost till it is raised three or four inches above the walk in front, and let the height of the back part be an additional six inches, so as to form a slope to the south; a layer of sea or river sand, one inch thick, should be spread over the surface, and if a tasteful arrangement be desired, the place for each bulb should be marked thereon. The following order appears the most natural, and has decidedly the best effect. Let the rows be six in number, and eight inches apart, and allow the distance between the bulbs, and four inches from the four outer rows to the limits of the bed. On the layer of sand in the places appropriated to them, let the bulbs stand in the following position throughout; red, blue, white, red, &c., commencing with a red in the first row, and in the second with a white, which place under a supposed point equi-distant from the red and blue above it; the next root will consequently be a red, and under the point between the blue and the white; in the third row begin with a red, as in the first, and let it be directly under the red, in that row; the blue following it will be beneath the white and red of the second row; the fourth row will commence with white as the second, and be directly under it; the red in the next place will be under the blue and white of the third row, &c. This mode allows the greatest possible diversity, and each bulb, except the outer ones, will be in the centre of a hexagon. In this arrangement yellow Hyacinths may be considered as white. Then cover them with a mixture of fresh earth and sand, three or four inches deep; the latter depth is the proper one for the earlier roots, as it will retard their progress, so as to bloom with the later ones; an attention to this is requisite to ensure all blooming together. When covered the bed will be completed, and if bordered on the sides, will add much to the neatness of it, or if preferred, brickwork may be substituted, and hoops placed over the bed, will be useful, as mats can be thrown over the beds, during severe frosts or heavy rains; but for slight frosts, as the Hyacinth is hardy, no covering is necessary, and rain, when not violent, is beneficial; the autumnal rains are, except in very dry seasons, sufficiently copious to obviate the necessity of artificial watering.

A few bulbs or reserves should be planted in pots at the proper time, and plunged in order to supply deficiencies that may occur, for some bulbs whose appearance indicate no symptoms of decay, are rotten at heart.

It will be proper to plunge them, and this may be done in the ordinary way, by placing the roots three or four inches asunder, then filling up the interval between, and afterwards covering them from six inches to a foot until the return of spring; but the greatest care must be previously taken to examine the earth, otherwise though but a single wire worm, or other noxious vermin remains, the roots are in jeopardy. Or another and much safer method may be adopted; instead of earth, let cinder ashes be substi-

tuted in its stead ; place the pots on layers of these, six inches thick, fill up the space between, and cover them as mentioned above. By this means no insect can approach the pot, so that if the compost in which the bulbs are planted be free from them, no injury need be apprehended ; they will now be safely lodged in their winter quarters, and by due attention will be a provision to supply deficiencies. They can be easily turned out of the pots into the bed. (*Flor. Cub.* 1853, p. 178.)

ART. II. Domestic Notices.

NORTH WESTERN FRUIT GROWERS' CONVENTION, FRUIT IN ILLINOIS, &c.—I had the pleasure of attending the North Western Fruit Growers' Convention, at Chicago, Oct. 4-7 ; but did not have the pleasure of meeting you, as I had hoped ; had you been there you would have seen a very fine collection of fruits—said to be the best show ever got up in the West. It was attended by members from Iowa, Wisconsin, Indiana, Michigan, Ohio, New York state, and from all parts of this state. Among others, I saw Mr. J. C. Holmes of Detroit, Michigan, Secretary of Michigan State Agricultural Society ; Dr. Warder, Editor of Western Horticultural Review, and Mr. Ernst of Ohio, Mr. Charles Downing of Newburgh, Mr. Watts and Mr. Fahnstock, of Rochester and Syracuse, I think. Your correspondent, Dr. Kennicott, was chairman. Mr. Avery of Iowa, came there from the Iowa State Fair, and had, among other fruits, a large collection of apples, said to be 150 kinds. I made notes on several kinds, new to me, and have others yet to ripen, some, I think, not in any fruit books, and will some time send you some of the notes to dispose of as you see fit. Among the pears there were none that would compare with some Flemish Beauties, from the farm lately belonging to my brother Charles ; the largest measured $11\frac{1}{2}$ inches in circumference, and weighed one pound. Another, not weighed, measured 11 inches ; so they were equal to your prize pears at the exhibition in Boston, which your Magazine for October says measured 11 to 12 inches.

This year I fruited a pear tree sent me from Mr. Kenrick as *Winter Crassane*. In color it answered his description, but it is a *September* pear. Tree very upright, and vigorous growth. Some which fell last of August, or early in September, ripened in the house, and were very fine ; the rest were soon after found on the tree and on the ground, ripe and worthless, or nearly so ; they looked fair outside, but rotted and turned black inside. Can you give me any idea of its true name ? The tree was affected with blight in the limbs. What effect that might have had I can't say ; but the fruit was on *healthy* wood.

Has there ever been published a second edition of Cole's Fruit Book ? I was much pleased to learn at the convention, that we are to have a new edition of Downing's Fruits and Fruit Trees of America, which is now being prepared by Charles Downing and M. P. Wilder, with corrections, and

additions of new fruits, bringing it down to the present time; to be published next spring. It was understood that Mr. Cole and Mr. Downing both were preparing new editions of their works, and the former was said to be in press.

While you have been having a great deal of rain, we here have suffered for want of it, having had no rain of any consequence for many weeks; so that many wells have failed entirely, and some cattle must have suffered for want of water. It is said to be the driest time ever known here. Our summer as a whole was very dry, and vines amounted to very little, and the fall has also been very dry. We have not had rain enough to make any mud for a long while. Yesterday we had more rain than for many weeks, and then not enough to affect our wells any. On Sunday, 23d, we had a few snow-squalls, first of the season. Thermometer, 24th, M. stood at 17°, coldest I have seen yet. Some pear trees and apple trees were badly affected with limb-blight this year.

What kinds of Evergreen trees, other than Red and White Cedars, will stand our climate and do well? Our weather varying from say about 100°, down as low as 23° below zero. The winds having a fair sweep of many miles in nearly all directions. This year I have fruited Beurré Diel, Lewis, Julienne on apple, Bloodgood and Winter Crassane, and Long Green of Autumn pears. Keswick Codlin, Boxford, Conant's Red Winter Sweet, Victorious Reinette, Twenty Ounce, and Red and Yellow Siberian Crab apples, and Manning's Golden Russet, besides two kinds unknown, and Elfrey plums. There is great confusion as to "Golden Russet" apples, and it is growing worse every year, as many new kinds are being brought forward. It is a pity that some one could not collect the different kinds and try to settle their true names, before it is a hopeless case.

Of Peaches we had a splendid crop, many of them very fine; most of mine believed to be seedlings. Among the peach trees I found two nectarine trees, bearing very fine deep red nectarines. A neighbor had some white nectarines this year, among his peach trees. Another had two nectarine trees, color unknown, from peach stones which I bought in Boston a few years since. I have saved the nectarine stones, to see whether they will produce nectarines or peaches. In my bed of Gladiolus bulbs, common kind, there was one very distinct, peculiarly dark and very rich, and I shall try to increase it next season; it was a sport which we think worth having. Perhaps the title of this should be *Olla Podrida*, as it treats of a little of many things. I think this will do for this time, so I will close, and remain, yours, respectfully, EDWARD S. L. RICHARDSON, *Kendall, Kendall Co., Oct. 27, 1853.*

Thanks to you, Mr. Richardson, for your pleasant chat about Horticultural and Pomological matters in the great West. We are always glad to hear from our friends there, and only regret we do not have the pleasure oftener. We feel a deep interest in all that transpires in your rich country, destined to be the garden of America.

We regretted much that we were unable to attend the Northwestern Fruit Growers' Convention; it would have been a great pleasure to us. The

show of apples alone would have repaid our visit, to say nothing of the many familiar faces and old correspondents whom we should have met there from all parts of the country. We would have sacrificed much to have been with our friends, but the duty we owe to our readers, in connexion with other engagements, rendered it quite impossible for us to leave at that period of the year.

The pear you name as having been received for the Winter Crassane, we should suppose might be the St. Ghislain or Belle Lucrative, both *upright* growers. If you had given an accurate description we might have been more certain in our opinion.

There are quite a number of Evergreen trees which will do well with you, viz.: the Scotch pine, (*P. sylvestris*.) Austrian pine, (*P. austriaca*.) European Silver fir, *Pinus excelsa*, Norway spruce, Black and White spruce, White pine, Norway pine, and several others more rare. The two first, especially, are admirably adapted to your locality, as they bear exposure without the least injury, and grow rapidly in almost any soil or situation. They are also very fine Evergreen trees. We shall be happy to receive the notes on the new varieties of apples exhibited at the North-western Pomological Convention.—Ed.

MUSA CAVENDISHII.—Can you inform me whether the *Musa Cavendishii* is a banana or a plantain. I am aware that the only difference recognized between the banana and plantain is that of variety as between a melting and cooking pear. That is, the banana can be eaten raw, and the plantain must be cooked to be edible. What I wish to know is, whether the fruit of *Musa Cavendishii* is edible and fine flavored in a raw state, like the banana, or not.

I had a *Musa Cavendishii* to fruit this year in my vinery. The bunch now weighs 25 pounds; but has not and will not ripen, because of a hail storm which occurred on the 9th instant which destroyed all the glass in my vinery, and cut to pieces the fruit and plant, so damaging it that I have no hope of its properly maturing. The fruit was making its last swell, and was changing from green to yellow, when the hail storm occurred.

The fruit is so cut by the hail and glass, and injured by exposure to the weather, that it is disposed to rot rather than ripen.

I have examined several books; some call it a plantain, some a banana, and sometimes the same author will call it both.

Unless, therefore, you have actually tasted it, or have heard from some person that has tasted it in a raw state, I would consider it very uncertain.—Yours, &c., M. C. JOHNSON, *Lexington, Ky.*, Oct. 27, 1853.

The *Musa Cavendishii* is a true banana. We have never eaten the fruit, but have seen it growing at Chatsworth and other places in England. Mr. Paxton, the Duke's gardener, has given a full account of it in the *Magazine of Botany and Gardener's Magazine*, and has recommended it as a *desert* fruit, and it was cultivated for that purpose at Versailles and Meudon, for the late Louis Philippe, King of the French.

If our correspondent has a copy of *Loudon's Magazine* for 1841, he will there find (p. 430,) some interesting information respecting its fruiting. If not we will publish the article at another time.—Ed.

THE BIG ARBOR VITÆ OF CALIFORNIA.—A friend and correspondent, residing at San José, writes to us as follows, in regard to this wonder of vegetation:—

"The hills opposite are covered with beautiful timber of *Taxodium sempervirens*, *Pinus Benthamiana* and *Lambertiana*, and at Santa Cruz, about seven miles distant, you would sit down and gaze upon them with admiration; but if you were to see the big Arbor Vitæ, now on exhibition at San Francisco, *thirty feet in diameter*, you would be perfectly amazed. When I went to see it there were *twenty people dancing in the hollow part*, with chairs and sofas all round. I tried to get some seeds but could not. I know some men who are going to cut wood in or near the locality, and will make arrangements with them to procure some.—Yours, B. S. Fox, San José, November 1, 1853."

OLD COLONY SWEET CORN.—We received from Hovey & Co., Boston, last spring, some of this corn, which we distributed; and from the returns we have received, as well as from a trial of it ourselves, we think it one of the most productive and useful varieties of the Sweet corn we have seen.—(*Journal of New York State Agricultural Society*.) [We are glad to hear so good an account of it, from one who is so good a judge as Col. Johnson, the secretary.—Ed.]

CERASUS ILICIFOLIUS, OR EVERGREEN HOLLY-LEAF CHERRY OF CALIFORNIA.—This beautiful ornamental evergreen is found within the limits of San Francisco, on the North Beach side of our city, below Clark's Point, perched upon the brow of one of the loftiest bluffs of the Bay. At this point the trees are young and thrifty, shooting up erect and spreading branches, with a dense, dark glossy green foliage—often bent back, enclosing or hiding their twigs from the casual view; the leaves thus arranged alternately, in four ways loosely imbricated, like tiles on a roof, give the young branches a somewhat stiff, columnar appearance.

At Capt. Maltby's Rancho, just below Point Jackson, in a sheltered nook of the Bay, it is much larger, rising to thirty feet in height, and about a foot or more in diameter. Here we observed one of those remarkable, fantastic freaks of nature so common on the Pacific: numberless limbs on all parts of the tree were seen growing together, often to upwards of twenty, all united, forming singular fan-shaped radiations of flat twigs from one to two inches in width, and no thicker than a quill! Some fine specimens of the Holly-leaf Cherry are to be seen on the road between Monterey and the Solidad Mission; it is also said to be common about the Mission of San Antonio, and along the western slopes of the mountains as far south as San Bernardino.

From the general appearance of the foliage, it naturally suggests to every one, at first sight, the idea of its being a species of *Holly*! This mistake we were well-nigh falling into on seeing it for the first time in mid-winter, but tasting (as we are wont to do) soon revealed the true cherry flavor. It is from this circumstance named *Cerasus ILICIFOLIUS*, (from *Ilex*, the Holly, and *folius*, a leaf—or conjoined, signifying *Holly-leaf* Cherry.) This species of evergreen cherry bears a corresponding relation to the *Sylva* of the

Pacific, that the evergreen cherry of the south does to the Atlantic: we allude to the *C. Caroliniana*, or "Wild Peach," as it is called in the South-western States, (owing to the strong peach-kernel odor, &c.,—hence we often hear of the "wild peach lands," to designate certain rich, light and generous soils. In some sections it is better known as the "Mock Orange," also "Cherry Laurel.") Both these species belong to the very natural section of *Laurocerasus*, along with the family of the bitter almonds. This subdivision of the genus *Cerasus* is distinguished by the racemes of flowers springing from the axils or forks of the old persistent leaves of the growth of the former season, as we see exemplified in the species before us. The California evergreen cherry, like its allied species beyond the mountains, is commonly a small tree, very much branched; the leaves are large, on short stems; broad, roundish heart-shaped; spinosely or prickly-toothed, veiny, smooth and shining above, and of a rigid, leathery texture; margin wavy, sub-folded, and bent back on its stem. The flowers are in dense racemes, (like the black cherry,) about as long as the leaves, though when mature they are two or three times as long.

The fruit is by far the largest of any known indigenous variety; specimens are brought to our market one inch and an eighth in diameter, and about one-eighth of pulp; the form is oval and somewhat pointed, the point turned to one side; dark purple, or black; the flavor a bitter-sweet, and astringent—not very palatable to most persons. The Indians, however, crush the fruit and make a kind of bread, of which they appear to be extremely fond; it is called by the natives *Islay*. The stone of this fruit is very large, and in some localities the pulp is meagre and rather dry.

We invite the attention of our nurserymen and gardeners to this tree, as one of great value to them. We need scarcely remark, that these seed should have the preference for seedlings and stocks, for budding and grafting the delicious foreign varieties. The fact of their being indigenous, and the consequent certainty of perfect adaptation to our soil and climate, ought sufficiently to recommend them. We have seen many failures in fruit culture, from not properly appreciating the importance of suitable stocks; e. g. in some parts of the Southern States the large "sawyer" worm cuts into the root and destroys the apple, when, if stocks of the wild crab are grafted, no such casualty ever happens; we have also seen them destroyed in some soils by the roots shooting down upon clay and stagnant water or moisture; whereas the wild crab thrives best in these very localities, shooting its roots horizontally, near the surface, and to great distances, thereby also resisting the high winds of the rainy season that prostrate the cultivated kinds. (D. KELLOOG, in the *Pacific*.)

This is a most beautiful evergreen tree, and is elegantly figured in Nuttall's *Sylva*, supplementary to Michaux's. It is doubtful whether it would be hardy enough for the latitude of Boston, though it deserves trial. South of Philadelphia, it would be one of the most valuable trees that could be introduced. As the seeds are easily procured in San Francisco, we hope our nurserymen will add it to their collection. —ED.

ART. III. Societies.

PENNSYLVANIA HORTICULTURAL.

Ad Interim Fruit Report, for November, 1853.—Since the October meeting of the Society, the following fruits have been forwarded to the Fruit Committee for examination:—

From P. H. Cassady, 29 Logan Square, two varieties of grapes.

1. *The Cassady.*—An accidental seedling white grape, with native leaf, and dark purplish wood, that sprung up in Mr. Cassady's yard in 1847, and fruited in 1852 for the first time. Bunch, of medium size, tolerably compact, and sometimes shouldered. Berry, below medium, five-eighths of an inch in diameter; form round; color, greenish white with occasionally a faint salmon tint, and thickly covered with white bloom; flesh, juicy with but little pulp; flavor, pleasant; quality "very good."

2. *The Kilvington.*—This may prove a known native variety. It was purchased by Mr. Cassady, seven years ago, before it had fruited, for the Isabella, and removed from Schuylkill, Fourth and Chestnut streets, to its present locality in Logan Square. Bunch, medium, compact. Berry, below medium, five-eighths of an inch in diameter; form, round; color, red, a shade deeper than the Catawba, with much bloom; seed, unusually large; flesh, contains some pulp, which is not tough, but half tender, and melting; flavor, vinous and saccharine without any Catawba aroma; quality "best."

From R. Iredell, Norristown.—A specimen of Duchess of Angouleme of enormous size, nearly five inches long by four and a quarter broad, and weighing twenty-five and a quarter ounces—exceeding in size any pear we have ever seen grown in this country. Notwithstanding its magnitude, we have never eaten a better flavored Duchesse,—a variety, by the way, which, when fully ripened, we regard in quality, at least, "very good."

From Mr. Eckert, Reading.—Additional specimens of the pear mentioned in the last "Ad Interim Report" as being probably the Beurré Diel. These were even larger than those previously received, and possessed a still more brilliant cheek, and equally fine flavor.

From Col. Charles R. Belt, D. C.—Specimens of Belt's Hybrid Walnut. The history and appearance of this unique and interesting hybrid present unequivocal evidence that it is a natural cross between the Butternut (*Juglans Cinerea*,) and the English Walnut (*Juglans Regia*,) the latter being the maternal parent. It originated about twenty years ago at Chevy Chase, the residence of Col. Belt, near Washington, D. C., from an English Walnut planted by his brother, Capt. Wm. I. Belt, late of the United States Navy. Capt. Belt procured the nut from an English Walnut tree in the garden of Mrs. Bowie, of Prince George's County, Maryland. Within a few hundred yards of Mrs. Bowie's residence, grew a number of Butternut trees, some of the pollen from the blossoms of which no doubt had been wafted by the wind, or conveyed by insects to the English Walnut tree in the garden, and occasioned hybridism. After the nut had sprouted, Col. Belt took it up and replanted it in the locality it at present occupies. The tree is a vigorous grower, and is represented as being exceedingly orna-

mental. In 1852 it fruited for the first time; and in September of the same year, specimens of the nuts, with the wood and foliage, were exhibited by Mr. Joshua Pierce, of Washington, at the meeting of the American Pomological Society, in Philadelphia. The nut, in its general appearance, differs very materially from any others of the *Juglans* family:—Size, large, one and three-fourths inches long, one and seven-twelfths wide, and one thick, exclusive of the remarkable carena, elevated a fourth of an inch above the surface, and extending entirely around its longitudinal circumference; form, ovate, pointed at its apex; exterior surface, deeply and boldly, but interruptedly and irregularly sulcated, without having the continuous longitudinal furrows usually noticed in the Butternut; color, light brownish yellow; kernel, fine. Mr. Pierce has succeeded in two instances in grafting this variety on the English Walnut. What has been the success of others, in propagating it, to whom scions were sent, we are not informed. It is extremely difficult to graft the Walnut in any of the ordinary ways. Owing to the excitability of its buds, they are apt to push, and exhaust the organizable matter of the scion, before its union with the stock can take place. This usual cause of failure is obviated by working, as recommended by the late President Knight, with the base of the annual shoots, the buds of which are small and but little developed. Another successful mode, noticed in D'Albret's recent work on grafting, is to cleft-graft in the side of the young shoots, and is said to answer well whether performed in the solid or herbaceous state. In regard to the stock of Belt's Hybrid, we would suggest the Butternut for standards, and the *Juglans Preparturiens* for dwarfs.

From J. B. Garber, of Columbia, Pennsylvania—Nine varieties of apples, sent to him from Georgia. These are the first apples we have received that were grown in that state. Much attention, we understand, is being paid at this time, by the pomologists of Georgia, to the raising of late kinds of this fruit. Those that ripen with us in the winter, become, when transferred so far south, autumnal varieties. This fact has induced them to turn their attention to Southern Seedlings. And we learn, that they have already succeeded in originating a number of kinds, which promise to be far better keepers, than those which they had previously obtained from the north. We are so much pleased with the appearance of those sent to us by Mr. Garber, that we hope Mr. Richard Peters, of Atlanta, or some of our other Georgia friends will furnish us, at the proper season, with other specimens for examination. Although those we have received are not in a condition for testing, we deem them sufficiently interesting to merit a full exterior pomological description, especially as most of them, are entirely new to us. And if it should prove from our descriptions, that we have not received the true varieties, we trust specimens that are genuine will be forwarded to our Society.

1. *Lamber Twig, or James River*.—This variety has been cultivated, to a considerable extent, in Virginia, and some of the Western States. Size, full medium, three inches long by three and three-sixteenths broad; form, rounding oblong; color, striped and marbled with pale red on a yellowish

ground, yellow around the crown, a good deal russeted about the base; stem, three-fourths of an inch long, by one-twelfth thick, inserted in a deep, acuminate, russeted cavity; calyx, small, closed, set in a wide, shallow basin.

2. *Summerour*.—Size, large, three and one-eighth inches long, three and five-sixteenths broad; form, roundish-oblate; color, a mottled greyish red, with dark crimson stripes and containing numerous large grey dots; stem, five-eighths of an inch long, and one-fifth thick, inserted in a deep, narrow, partially russeted cavity; calyx, small, closed, set in a deep, wide, plaited basin.

3. *Berry*.—Size, rather large, two and five-eighths inches by three and five-sixteenths; form, roundish-oblate; color, striped and mottled with crimson on a greenish-yellow ground, with a number of green russet spots; stem, one-half an inch long, one-tenth thick, inserted in a tolerably deep cavity; calyx, rather large, set in a wide, shallow basin.

4. *Mountain Sprout*.—Size, medium, two and three-fourths inches by two and seven-eighths; form, oblong-truncate; color, red, with stripes of deeper hue, white dots numerous; stem, three-eighths of an inch long, one-eighth thick, inserted in a narrow cavity; calyx, medium, partially open, set in a wide, deep, slightly furrowed basin.

5. *Camac's Sweet*.—Size, below medium, two and one half inches long, by two and three-fourths broad; form, roundish, conical; color, whitish-green, clouded with green-russet on the more exposed parts, and a faint brown blush; stem, (perhaps broken,) one-fourth of an inch long, and one-eleventh thick, inserted in a narrow cavity; calyx, large, closed, set in a wide, shallow basin.

6. *Nickejack*.—Size, large, two and three-fourths inches long, by three and seven-eighths broad; form, oblate; color, striped and mottled with red on a greenish ground, grey dots abundant; stem, five-eighths of an inch long, and one-eighth thick, inserted in a wide, not very deep, russeted cavity; calyx, large, partially open, set in a wide, superficial basin; core, under medium; seed, small, light brown, ovate; flesh, tender, juicy; flavor, fine, with an exceedingly delicious though delicate aroma; quality "best." This variety we regard with especial favor; and we feel assured it will become popular wherever known. It is said to be a native of North Carolina, and to have been found growing among the Cherokee Indians.

7. *Callasaga*.—Size, above medium, two and three-fourths inches long, by three and one-fourth broad; form, roundish, slightly tapering to the crown; color, dull brown, faintly striped, on a greenish-yellow russet ground; stem, three-eighths of an inch long, and one-eighth thick, inserted in an irregular, rather deep cavity; calyx, large, open, set in a deep, wide, obscurely furrowed basin.

8. *Cranberry*.—Size, medium, two and five-eighths inches long, by three broad; form, roundish-conical; color, brightly striped with carmine on the unexposed side, and of a deeper red on the part subjected to the full solar influence, many grey russet dots, large and sometimes stellate towards the base, smaller and more numerous near the crown; stem, three-eighths of

an inch long, and one-ninth thick, inserted in a narrow, acuminate, russeted cavity; calyx, small, closed, set in a wide, shallow basin, with four or five small fleshy elevations, at the bottom near the calyx.

9. *Dapper*.—Size, rather small, two and one-eighth inches long, by two and three-fourths broad; form, roundish-truncate; color, whitish-yellow, with several crimson specks, and faintly clouded and marbled with yellowish-green, with an obscure pale orange cheek; stem, three-eighths of an inch long, and one-twelfth thick, inserted in a medium, acuminate cavity; calyx, small, closed, set in a moderately wide, very deep basin.

From Chas. Kessler, Esq., Reading.—A collection of fruit, embracing specimens of a pear from Lower Heidelberg, Berks Co., Pa., and nineteen varieties of apples, eleven of which were grown in Berks Co., and eight near Dixon, Ill.

1. *The Heidelberg Pear*—which was supposed to be a foreign variety, we did not recognize till it was cut, when it at once became known to us as the Feaster. Under the name of Bleeker's Meadow, it is noticed in most of the horticultural works, but its merits have not been properly appreciated. And although admitted to be a native of Pennsylvania, there is no published record of its history, nor any information given in any work in regard to the particular locality of its origin. The Philadelphia market has long been abundantly supplied with it, under the names of Spice and Spice Butter. Not, however, until recently, have we been able to trace its history; for which we are chiefly indebted to Mr. Mahlon Moon, of Morrisville, Bucks Co. This variety originated, about seventy years ago, with Aaron Feaster, of Northampton Township, Bucks Co. Having sprung up on a piece of ground used as a meadow, Mr. Feaster designated it the Meadow Pear; subsequently it was named the Feaster. The original tree is still standing, and continues, at the age of three-score years and ten, to bear most abundantly. Some seasons, it has yielded five barrels of fruit, which was sold for forty dollars. Although rather coarse in texture, and somewhat gritty at the core, yet when properly house-ripened, it is rich, melting, delicious, and in quality, "very good." Judging from the form and flavor, its parents are probably the Seckel and the Bergamot. October is its period of maturity.

ART. IV. *Obituary.*

DEATH OF J. E. TESCHEMACHER.—We perform a melancholy duty in announcing the death of Mr. Teschemacher, which took place very suddenly, in the cars, on the way from his residence in Medford to Boston, on the 8th of November.

Mr. Teschemacher was well and widely known to all cultivators, by his numerous contributions to our Agricultural and Horticultural periodicals, for more than twenty years; he was also known as the author of a pamphlet on the use of guano; and the translator of Stockhardt's Agricultural Chemistry, a most valuable work, reviewed in our present volume. To our readers he is

especially known, for the many excellent articles he has contributed throughout the 19 volumes of our Magazine, embracing a variety of subjects, but more particularly in reference to the application of guano to the cultivation of plants. Mr. Teschemacher was one of our best friends and oldest correspondents. He was not only an enthusiastic horticulturist, but an ardent botanist, mineralogist, geologist and chemist, employing his leisure hours in the pursuit of these studies. He was a prominent member of the Mass. Hort. Soc., and an officer of the Society of Natural History.

Devoted to the study of agriculture and the kindred sciences, his loss is a public one. Esteemed alike for his social worth and scientific attainments, he leaves a large circle of friends who deeply lament his sudden death.

HORTICULTURAL OPERATIONS

FOR DECEMBER.

FRUIT DEPARTMENT.

November has been a mild and favorable month for gardening operations. The early part of it was very pleasant, and the latter cooler, with great quantities of rain; and just as we are now writing, cool weather seems to have set in in earnest, the thermometer indicating only 16°. A "thaw" will undoubtedly succeed such a snap, which was too sudden to be of long duration. But whether mild again or not, there is no chance for complaint; the greater part of the month has been exceedingly favorable for planting all kinds of trees, and preparing for the coming cold weather.

GRAPE VINES in the early houses will now begin to show signs of growing, and if the temperature is properly regulated, will be well broken by the last of the month. Keep a good temperature during the day, especially in cloudy, damp weather. Tie the main branches firmly to the trellis, and secure the new growth as it advances. See that the borders are well protected with a good thick covering of leaves. Vines in the greenhouse and grapery should all be pruned, washed, and cleaned this month, and put in order for the winter. Vines in coldhouses should be immediately pruned and protected, if not already done.

PEACH TREES in pots, intended for very early fruit, may now be introduced into the earliest vinery, where they will fruit early in May. Those for bringing in as a succession, should be placed in some cool shed or cellar, where they will be out of danger of very severe frosts.

RASPBERRIES should be covered now.

STRAWBERRY BEDS should be protected.

FIGS in pots may be brought forward now for the first crop: place them in the warmest part of the house.

FRUIT TREES of all kinds may be planted until the ground freezes up. Protect the trees with a little covering of manure, and they will start more vigorously in the spring.

STRAWBERRIES in pots, for forcing, should now have the protection of an old frame, till ready for removal to the house.

FLOWER DEPARTMENT.

The month of December is one of the least activity in this department. Everything in readiness for winter, the industrious gardener has little else to do but to keep all indoors neat and in the best order; potting off newly propagated stock; shifting all that need larger pots; top dressing others, and staking up all ill-formed or straggling plants. This is the month to do all such labor, for, with the advent of the New Year, there is a rapid accumulation of work, which leaves but little leisure compared with the present season.

CAMELLIAS will now be coming into full bloom; keep the plants well watered, and syringe the leaves in all good weather. Grafting may be commenced the last of the month.

HEATHS will need attention: keep them in the coolest part of the house, where they can have an abundance of fresh air, and water liberally, especially such as are coming into bloom soon. **Epacris** will need the same treatment, excepting that they will bear more heat than the heaths without any injury.

AZALEAS should be rather sparingly watered this month.

OXALIS BOWIEI, &c., done blooming, may be placed away under the stage on a dry shelf.

CHRYSANTHEMUMS done flowering, may have the tops cut off and the plants removed to a cold frame, where they can be protected with a light covering of leaves.

PELARGONIUMS will now begin to require more attention; all the specimen plants may now have a shift into larger pots; topping all the vigorous shoots, in order to have compact bushy specimens. Plants raised from cuttings may also have a shift now into the next size.

CINERARIAS should have attention; guard against the green fly, and fumigate the moment they appear upon the plants. Vigorous growing specimens will now need a shift into larger pots.

VERBENAS struck from cuttings in September or October, should now be potted.

CHINESE PRIMROSES may be shifted if they require it.

JAPAN LILIES intended for flowering in the house, should be kept in a cool frame, covered with leaves.

HYACINTHS, **TULIPS**, and other bulbs, for early flowering, should now be potted, and put away in a cool place, till well rooted in January, when they may be brought into a warm parlor or the greenhouse.

PANSIES raised from seeds in September, may now be potted off and brought forward for early blooming.

CALLAS may be shifted now into larger pots.

PLANTS of all kinds should be looked over, and such as need it be repotted. Stake, tie up, and put in good order, everything throughout the house. Fumigate often for the aphid, and kill the red spider with sulphur.



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